

TECHNOLOGY DEPARTMENT

First Copy

MAY 13 1925

DETROIT

The AMERICAN RIFLEMAN

The Rifle 1885, Shooting & Fishing 1888, Arms & the Man 1906

VOLUME LXXII



NUMBER 23

MAY 1, 1925

Frankford Über Alles

R. V. Reynolds

The High Country of Rupshu

W. J. Morden

The Webley Air Pistol

J. S. Hatcher

A Small Town Rifle Club

E. M. Farris

This Matter of Reliability

E. A. Price

Shots at Soap

J. E. Brownlee

The Game Getter

G. Walter Booth

Telescope Mount Troubles

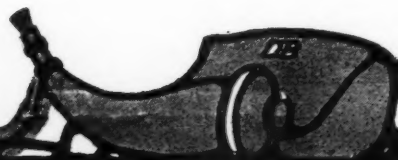
J. W. Fecker

Experiences with Binoculars

Byron E. Cottrell

\$3.00
the year

20 cents
the copy



WINCHESTER

MODEL 52 RIFLE

The Best Target Rifle

"Of all .22 rifles the 52 Winchester covers practically the most ground. It is as useful in the field as on the range. It is the only .22 precision firearm which is useful for any purpose, indoors or out, on the range or in the field. It is an extremely intelligent rifle all around."

—John Wallace Gillies, in "Outdoor Life."

What Mr. Gillies writes is also the opinion of the majority of our small bore shooters. The Statistics of the N. R. A. Matches tell a story that should not be overlooked by any rifleman who wishes to secure the maximum results from his skill. Ninety per cent of all championship matches are won with the Winchester 52 — and two-thirds of those who participate in the matches use the same rifle.

There must be reasons why the champions, whose likenesses appear on this page, and the members of the Spang-Chalfant Club of Etna, Pa., (shown at bottom) use Winchester 52's in preference to all other rifles. Here are three good reasons:

Accuracy - Dependability - Service

Ask the men who shoot them!

WINCHESTER REPEATING ARMS CO.

New Haven, Connecticut

The Right Combination

The model 52. Precision ammunition and the Winchester 5 A telescope sight, makes a perfect combination for rifle shooters. This trio is the outstanding equipment for accuracy. Used as a combination they make the road to success much easier to travel.

Something You Should Know

The advantage of using a Winchester 5 A telescope sight is not primarily that it magnifies the target but that it literally brings the target up to the sighting point so that the eye sees both at the same time with equal distinctiveness.



S.D. MONAHAN



H.E. STASSEN



J.R. DAUM



DANIEL D. HOAG



DAWSON WYANDT



GEO. W. SMITH

100 per cent Winchester — The Spang-Chalfant Club of Etna, Pa.



Vor

I

bo
tio
for
pa
ma
tio
be
to
ev

ve
be
bu
is
ne
An
Na
lit
Th
br
fu

M
tic
lo

INTERNATIONAL

PALMA

The AMERICAN RIFLEMAN

The Publication of the National Rifle Association of America

Entered as second-class matter, April 1, 1908, at the Postoffice at Washington, D. C., under Act of Congress of March 3, 1879

Vol. LXXII, No. 23

WASHINGTON, D. C., MAY 1, 1925

\$3.00 a Year. 20 Cents a Copy

Frankford über Alles

By R. V. Reynolds

IN a neck and neck race, as full of thrills and powder fumes as the finish of the National Team Match, Frankford Arsenal outdistanced Remington, Western, and Winchester, and won both events in the test for selecting Palma Match and International Match ammunition for 1925. Victory was sweet to Frankford, for it marked the culmination of two decades of effort on the part of the Government ammunition makers to surpass the special match cartridges of their commercial rivals. Their congratulations were honestly earned, for in the long range contest they beat Remington-Palma, which the majority of riflemen concede to be the most uniformly accurate match cartridge the world has ever known.

The cartridge which accomplished this feat contains a high velocity charge of du Pont progressive-burning nitro-cellulose, behind the Arsenal's 172 grain, 9 degree boat-tail, gilding metal bullet. This assembly of components is thoroughly modern. It is the same as those which will probably be adopted within the next few months as the service ammunition for the United States Army. They are also the same as those which won the test for National Match ammunition last fall, which showed accuracy little inferior to the best Palma ammunition known at that time. The winning Palma cartridge is therefore the hand-loaded big brother of the 1925 National Match load, and of our probable future service cartridge.

The bullet used in the winning Palma, and in 1925 National Match ammunition, is also used in the winner of the International Match test. This bullet has the flattest trajectory and longest range of any bullet ever tested by the Ordnance Depart-

ment. It gives a trajectory up to a thousand yards which is only about two-thirds as high as that of the 150 grain, flat base service bullet, and requires ten minutes less elevation. The extreme range is nearly double that of the service bullet.

At a meeting held in Washington, October 14, 1924, the Board for Determining the Type of Arms and Ammunition for the National and International Matches for 1925 decided to test International and Palma Match ammunition at the Ordnance Proving Ground, Aberdeen, Maryland, on April 6. On March 24 the date of this test was postponed until April 23 and 24.

The conditions were laid down approximately as follows:

1. All firing to be conducted from Mann barrels, at the Small Arms Testing Range.
2. Not to exceed two lots to be tested at each distance for each contestant.
3. For International Match ammunition, firing to be at 300 meters, and 15 * targets made the first day.
4. For Palma Match ammunition, firing to be at 1,000 yards, and 20 * targets made the first day.
5. Firing on the second day to be a repetition of the first day's program.
6. Measurements and averages to be made as in other recent tests, the Palma winner to be the ammunition showing the smallest mean radius, and the International load to be that showing the best figure of merit.
7. Limit of acceptable chamber pressure to be 52,000 pounds as determined by the Board, with uncompressed coppers.

* Revised program called for 12 Internat'l and 16 Palma targets each day.

Descriptions of Competing Ammunition

	COMPETITORS AND LOTS	BULLETS			POWDER			MEAN VEL. At 78'	PRESSURES Factory		Board Mean Pressures Coppers Uncompressed
		Grains	Shape	Jacket	Grains	Make	Lot		Mean	Max.	
INTERNATIONAL 300 METERS	Frankf'd Ars. Lot 1	172	9° B.T.	Gilding	36.3	Dupont	1195-5 Flake Nitro	2207	No Record		29,545
	Remington Lot 2	172	9° B.T.	Gilding	37.6	HiVel	No. 2 Lot 1488	2199	No Record		47,137
	Remington Lot 3	180	Flat Base	Cupro	44.5	HiVel	No. 71 Blended	2603	54,580	56,000	50,245
	Remington Lot 4	180	Flat Base	Cupro	51.7	Dupont	1147 Blended	2630	50,840	53,100	47,875
	Western C Co. Lot 1	220	Flat Base	Lubaloy	50.5	Dupont	I.M.R. 15 1/2	2313	44,640	47,290	42,000
	Western C Co. Lot 2	220	Flat Base	Lubaloy	51.0	Hercules	560-9B Pyro	2375	49,320	51,070	50,950
PALMA 1,000 YARDS	Winch'r RA.Co. Lot 301	178	9° B.T.	Gilding	37.5	Dupont	1195 Lot 14	2227	No Record		46,383
	Winch'r RA.Co. Lot 302	178	9° B.T.	Gilding	35.5	HiVel	Lot No. 71	2187	No Record		28,915
	Frankf'd Ars. Lot 3	172	9° B.T.	Gilding	54.5	Dupont	I.M.R. 1147 Army Lot 1489	2776	53,555	54,850	I.C. 45,000
	Remington Lot 4	172	9° B.T.	Gilding	41.4	HiVel	No. 2 Lot 71	2500	40,910	41,750	38,530
	Remington Lot 1	200	Flat Base	Cupro	42.0	HiVel	No. 71 Blended	2415	51,320	52,900	46,900
	Remington Lot 2	180	Flat Base	Cupro	44.5	HiVel	No. 71 Blended	2603	54,580	56,000	45,168
PALMA 1,000 YARDS	Western C Co. Lot 3	180	Flat Base	Lubaloy	46.0	HiVel	No. 71	2642	53,940	54,670	I.C. 42,000
	Western C Co. Lot 4	180	Flat Base	Lubaloy	51.2	Hercules	560-9B Pyro	2611	45,660	46,890	46,625
	Winch'r RA.Co. Lot 101	173	9° B.T.	Gilding	47.0	HiVel	Lot No. 71	2751	52,950	54,400	49,695

These members of the Board were present, the Senior Member, Brig. Gen. Colden L.H. Ruggles, being in Europe; Lieut. Col. George C. Shaw, Infantry; Lieut. Col. Fred M. Waterbury, N. G. N. Y.; Maj. William S. Fulton, Coast Artillery; Maj. Herbert O'Leary, Ordnance; Maj. Glenn P. Wilhelm, Ordnance; Maj. Littleton W. T. Waller, Jr., late U. S. M. C.; Lieut. Comdr. E. E. Wilson, U. S. Navy; Capt. Grosvenor L. Wotkins, Ordnance; Mr. R. V. Reynolds; Mr. K. K. V. Casey.

Representatives of the cartridge and explosive trade were, *Frankford Arsenal*, Col. O. T. Horney, Major Hatcher, Captain Chavin, Lieutenant Rothbrock, Lewis, Schnaebel, Schnerring, Hallowell, Matthews, Wilson, Hogue; *Remington*, Kahrs, Dickerman, Hadley, Wurme, Archambo; *Western*, Riggs, Rosseau, Storms, Transue; *Winchester*, Graveley, Robinson, Bollensanger; *Peters*, Col. Tewes, Starkweather; *United States*, Col. Dooley; *du Pont*, Major Simmons, Gruendyke, Cox, Haff, Bates; *Hercules*, Marsh, Weldon, Troxler.

Other distinguished observers were General Joyes, Chief of Technical Staff and Assistant Chief of Ordnance, Col. W. T. Tschapat, Colonel Macnab, Brig. Gen. Phillips, Mr. Gray, Mr. F. J. Jervy, Captain Rasbach, Ordnance, N. G., N. Y., Lieut. Frazer, Laurence Nuesslein, and Harry Pope, the veteran rifle maker.

SOME of the brethren are sure to be interested in the range itself, and methods of conducting the tests, so here are the principal points of interest.

The thousand yard small arms testing range at Aberdeen occupies only a very small corner of the extensive reservation, which contains a bewildering array of quarters, workshops, artillery and bombs of all description, hangars, planes, a dirigible balloon, and other paraphernalia of the Army Air Service. It is, however, a complete affair, facing approximately south. The principal firing point is a wooden building elevated several feet above ground. Five concrete pillars founded on bed rock come up through its floors, but are freed from them so that vibrations from walking do not affect the machine rests mounted on the pillars. The muzzles of the guns project through suitable windows, and command butts at 300, 600, and 1,000 yards. The 300 meter firing point is located further south and has no house, but is provided with concrete pillars, which are protected by a tent when firing is done. From this point fire is directed at the 600 yard butts. Excellent telephone connections are provided.

The concrete pillars are so equipped that firing can be done from them either with Mann barrels or service rifles. Pistol am-

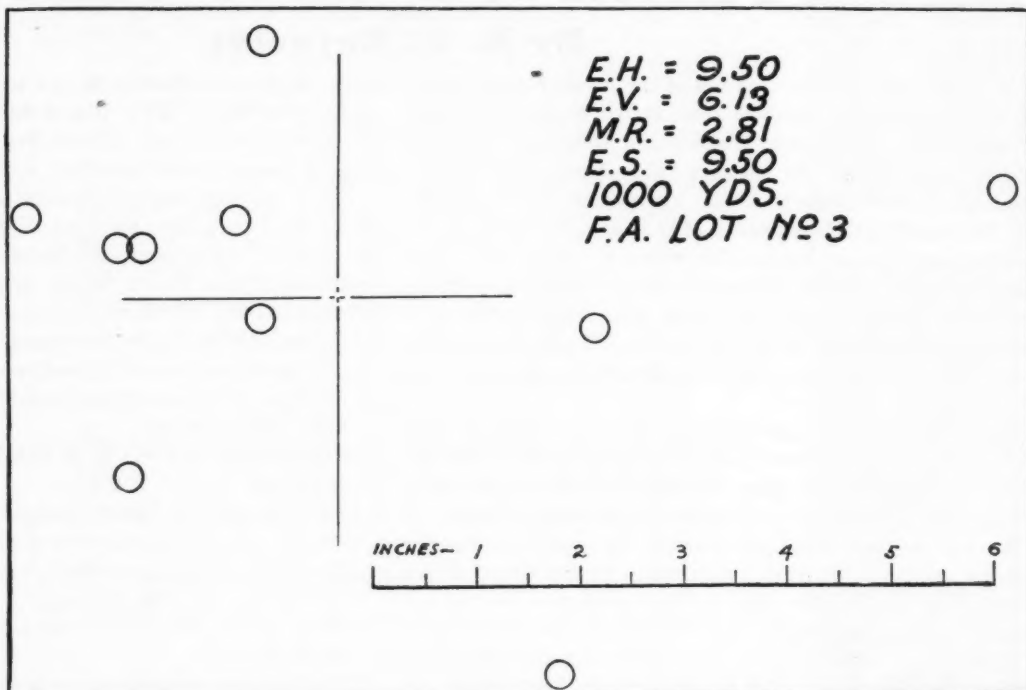
munition can be tested from the main firing house using special Mann barrels, and firing on target frames at 50 yards. Mann barrels, named for the late Dr. Mann, are heavy steel cylinders, about two inches in diameter and two feet long, rifled and chambered, and fitted with Springfield actions, the stocks sawed off at the neck. Each barrel carries two substantial steel collars, carefully turned and polished, one around the muzzle and the other around the chambered end.

On the top of each concrete pillar is a heavy block of steel with a raised central part, containing an accurately planed V-shaped groove longer than the barrel, and

pany's cartridges are fired from each barrel and also from each rest, an equal number of targets being made by each ammunition with each combination. By this plan each competitor has the same opportunity as every other as near as it is humanly possible to eliminate chances for advantage.

The firing is done in volleys at ten second intervals at the command of the officer in charge. Thus each ten shot group requires 100 seconds. Chances in the weather conditions are equalized because all contestants fire at the same instant.

After firing a prescribed number of targets from the same rest and with the same barrel,



directed toward the butts. In this true, polished groove the collars of the barrels rest in firing. The groove is kept oiled to permit smooth recoil, and the gun is prevented from rearing up either by holding it down with the hand or by the use of a spring clamp applied near the middle. The mechanism is provided with traversing and elevating screws, by which the fire from the gun can be accurately centered on the distant target.

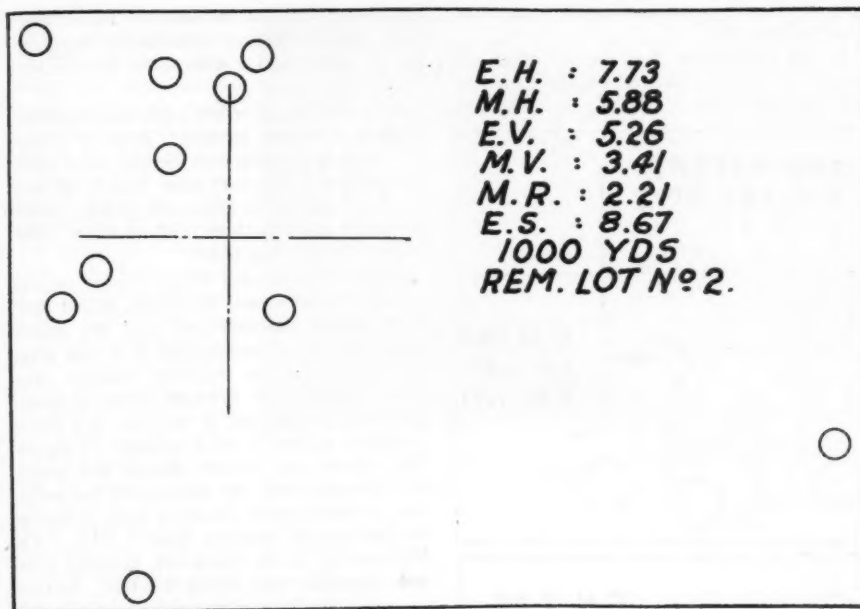
In firing the gun is revolved in the groove until the action is right side up. The bolt is opened and a cartridge inserted. Then the gun is slid forward until the rear collar touches a certain mark, rolled over until the trigger is uppermost, and fired by squeezing the trigger and the rear part of the trigger guard between forefinger and thumb. The object of all this is to fire a series of shots, each held, aimed and fired as perfectly as possible, without introducing any of the errors which enter into firing from the shoulder. In other words it is a test of the ammunition, with the human element removed so far as possible.

In order to remove other variables in testing several kinds of ammunition, each com-

petitors exchange barrels and rests according to plan. At the same time in the butts the targets are removed and brought to the measuring room near the main firing point. The fouled and heated barrels are thoroughly doped with metal fouling solution, scrubbed, and cooled in water.

Thus, when the firing proceeds, each contestant receives a clean, cool barrel, which contains none of the metal fouling from his predecessor's ammunition. This is deemed important because gilding metal bullets do not seem to behave as well in a barrel fouled by cupro-nickel jackets, and vice versa. When a contestant receives a cleaned barrel and moves to a new pillar he has to start in with sighting shots, and often if the wind is troublesome quite a little time is expended in getting all the groups safely centered at the butts. But this must be done, because at long range the effect of the wind is considerable, and if even one shot goes off the paper, its relation to the group cannot be measured, and its absence necessitates throwing out all the competing targets fired at the same time.

The butts are slightly different from those ordinarily used in target practice. Instead of



These groups, together with the one shown on the opposite page, are reduced approximately one-third from actual size. The reduction is the same in all three cases and the scale shown on Page 2 can be applied to any of the three. Plot these groups out to actual size and you will have no difficulty whatever in placing them well within the V ring of the thousand yard target, at which range they were made. Just think what the Remington group would be if it were not for that one wide shot, which was undoubtedly blown out by wind and therefore might have been controlled by wind doping under match conditions. Eight of the shots from this Remington group could be included in a four inch circle, next year the entire ten will probably be in.

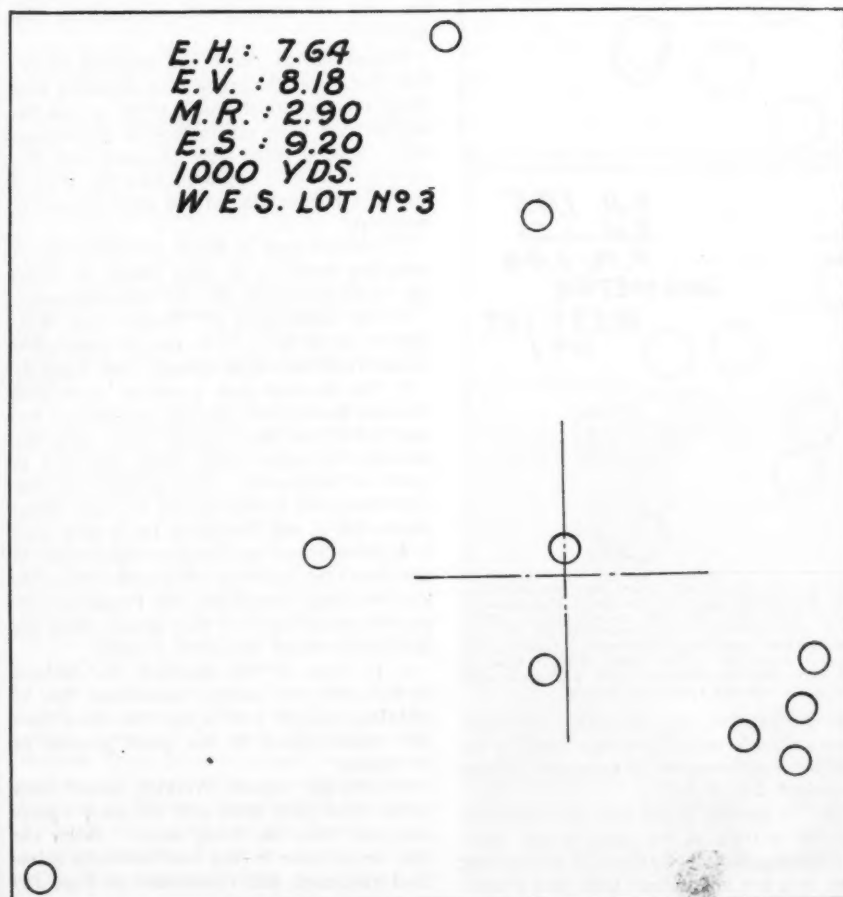
E. H.-Extreme horizontal.

E. V.-Extreme vertical.

M. V.-Mean vertical.

E. S.-Extreme spread.

M. H.-Mean horizontal.



having frames in which targets slide up and down, there is a tall framework which carries five big rolls of wrapping paper supported in journals, to unroll as desired.

The rolls are at the top, laid horizontally, and protected from stray bullets by sloping armor plate. At the bottom of the frames, behind the concrete butts, are five sets of journals which receive iron spools, one under each roll. The end of the paper is pulled down and a few turns taken round the spool at the bottom. This exposes part of the paper, 5 feet wide and about 6 feet high, to the firing point. After a ten shot group has registered, the paper is rolled further down by turning the bottom spool, thus exposing a fresh target surface. In this way any desired number of groups may be conveniently received and rolled in compact form. Each group is marked with letters and figures of a code showing the officer in charge which contestant, lot, gun, and firing point delivered it. These details, except the last, are not known in the butts. When the interval for changing guns occurs the paper is cut off and the loaded spools are delivered to a motor messenger who takes them by a side road to the measuring house. Empty spools are inserted, the paper attached, and firing is resumed when the contestants are ready.

In the 1,000 yard butts, standing near the telephone, one can plainly hear the volley, something like rapping on a table with a pencil. About a second later the bullets come cracking overhead and through the paper. Half a second later the reports of the guns arrive by the regular route through the air. The cracking sound of the bullets parting the air overhead is somewhat louder than a .22 rifle fired several feet away. The boat-tail bullets have a different sound from the flat base bullets, the former giving a sharper crack, on account of their greater remaining velocity at long distance. It was not until high velocity small bore ammunition was adopted that bullets made this peculiar cracking sound, and it was not always correctly explained. Even that keen observer, Colonel Roosevelt, states in his book on the Rough Riders that he and Colonel Wood heard this sound in Cuba when the Spaniards fired upon them with Mausers, and wondered whether explosive bullets were being used.

Arrived in the measuring room, the target strips are unrolled, the groups cut apart, and several crews of computers take them in hand, first to locate the center of impact, and then to measure and tabulate the extreme vertical, extreme horizontal, mean radius, and the figure of merit, which is a quantity computed from the measured factors. All of these, when checked, are posted on a large tabulation sheet, with their averages as the test progresses.

So much for the *modus operandi*. About the only unsatisfactory thing in its working is the width of the paper used for targets. At 1,000 yards under certain weather conditions it is very difficult to keep the groups well centered on a strip five feet wide, as riflemen will readily appreciate.

Considering the frequent need for sighting shots it seems possible that time might be

saved if the heads of the traverse and elevation screws on the mounts were graduated to minutes.

FAIR indeed to the eyes of Northern visitors were the green lawns of Aberdeen on the morning of April 23. A light southerly breeze was drifting a thin mist in from Chesapeake Bay, but the temperature was high enough to make overcoats unnecessary, and the sun promised to break through a slightly overcast sky.

On account of a drenching downpour of rain about five o'clock the Board did not assemble promptly at 8 o'clock, as scheduled. There is always some delay in organizing the personnel and getting the guns accurately laid on the 1,000 yard targets. Captain Wotkins was in the butts, with Sergeant Rieker and four men, one to handle each target for the four competitors.

In the firing house there was a pleasurable flurry of anticipation. A test of this kind involves a great deal of expense to the competitors. If you had to pay an entry fee of several thousand dollars to fire in the Wimbledon you might fancy the responsibility felt by the men who are chosen to handle these guns. There have been months of preliminary work. The equipment is strange and a lot of strangers are looking on. The nerves are apt to be taut. Yet the veteran Hogue, of Frankford, was laying his gun to all appearances as placid as though he were about to try out a new brand of .22's in his cellar. Remington had entrusted its fortunes to the skill of Archambo. Transue fired for Western and Bollen-sanger for Winchester. Considerable time was consumed in sighting shots.

At 10 o'clock the first volleys came from the Mann barrels. The sky had brightened considerably, and the breeze from the butts to the guns had stiffened into a tricky wind, fishtailing from 11 o'clock to 1 o'clock. As the result, by 10:30 every competitor except Frankford had slipped a group partly off the edge of his target strip. At 11:45 a sudden puff took all four off the paper. Some went off at one "order" (group) of firing, and some at another, and the net result was the invalidating of six "orders" for all competitors. This situation began to loom up as a dilemma for the Board, because neither Western nor Winchester had sufficient ammunition to fire additional orders to make up the total number called for by the program.

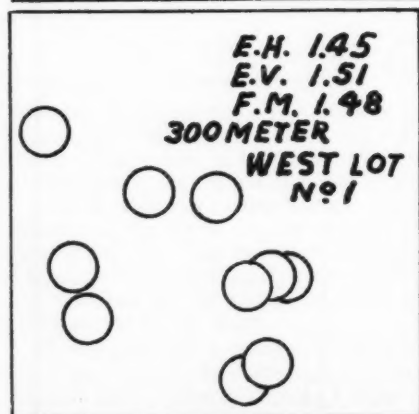
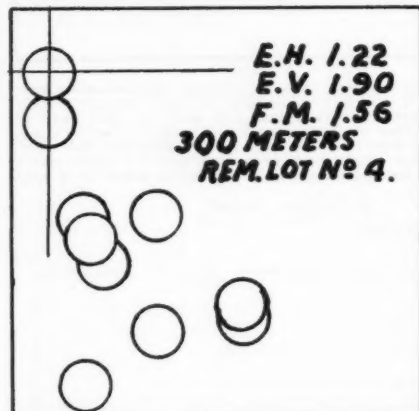
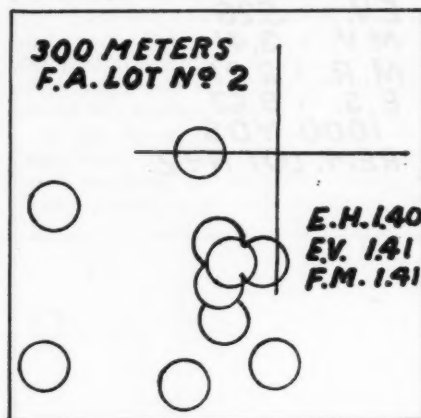
The Board retired into executive session and considered several plans, none of which seemed to promise a solution that would satisfy all contestants.

A buffet luncheon of sandwiches and coffee helped to stimulate the flow of discussion and thought. At 2 o'clock the Board, after another protracted session, announced that it would discard all orders containing misses, and obtain a temporary average based on the remainder, further action to depend on apparent needs after firing on the second day.

At 3 o'clock the International test began, from the tent-sheltered pillars on the 300 meter range. At this range the wind presents no difficulty so far as staying on the target is concerned, so all twelve orders were success-

fully completed in reasonable time and tabulated before 5:30.

At the end of the first day of firing the figures at command showed Frankford Lot 3, and Remington Lot 2, nearly tied in the long



The targets above are actual size reproductions of the best group each of the three highest competitors fired over the 300 meter range. Place any of these groups in the center of the 10 ring on the International target and notice there is still sufficient room for a few more shots. Keep in mind, also, that the bottom group was made with a 220 grain hunting soft point bullet.

range competition, and the other two contestants already out of the race unless a remarkable improvement should occur during the second day of test.

April 24 dawned bright and much warmer, with just a trace of bay mist in the upper air. Sighting shots began at 8:15 on the long range, in a five mile breeze from nine o'clock.

The silvery form of the dirigible TC5 cruised about the reservation, occasionally approaching the range, half a mile above the cracking bullets.

At 8.30 firing of orders began, and continued without untoward incident. After 9 o'clock the breeze freshened, and became more puffy. During the day it may have been a 15 mile wind at times, but it continued squarely across the range at most times, and no bullet failed to find the five foot paper.

During the morning Major Casey, assisted by Mr. Nuesslein and Mr. Pope, sallied forth to a suitable location and fired ten rounds from each lot of ammunition in a rifle fitted with mechanism for recording chamber pressure. Briefly, the pressure blows a round piece out of the side of the case and drives a plunger against a small cylinder of copper. The copper is of known density and length. By measuring with the micrometer the reduction in length which occurs, a basis is secured for reading the pressure from a table. The high quality of the Frankford cartridge cases was apparently seen during this test. In most instances the holes in the cases were punched cleanly by the explosion, but many of the Frankford cases showed holes with ragged edges, indicating superior toughness of the metal.

At noon came more sandwiches, and a wide variety of bottled pop, served by the canteen from the tail board of a motor truck.

The short range test began soon after luncheon, and was finished with workmanlike dispatch.

Meanwhile the Board had resumed its deliberations over the problem of obtaining long range averages which would serve to pick the winner on a basis satisfactory to all contestants. Several plans were proposed and discarded. The final approved plan was worked out on a combination of the ideas of several members.

To recount here, in detail, the entire line of reasoning would be of little benefit or interest. Sufficient to say, that the main steps were:

1. The elimination of Western and Winchester on the basis of 26 sets of comparable targets from both days' firings. (See Table 2)
2. The decision that a virtual tie existed between Remington and the Arsenal, on the basis of 31 ten shot targets from each, the difference in mean radius being .006 inch in favor of Remington. This decision was the more necessary in view of the fact that Remington Lot 2, and Frankford Lot 3 were fired in different relays and therefore not exactly at the same time, and also, while each competitor had one target eliminated, the Frankford target eliminated had a 9 shot group, while the Remington target contained 2 shots.

3. In view of this situation, the decision to have the two leading competitors fire 16 additional targets, and to base the award upon the results shown by the grand average of 47 targets.

Accordingly Captain Wotkins dashed back to the 1,000 yard butts, and 160 more volleys rang out from the firing house. When the final series came in they were carefully measured, tabulated, and (Continued on Page 18)

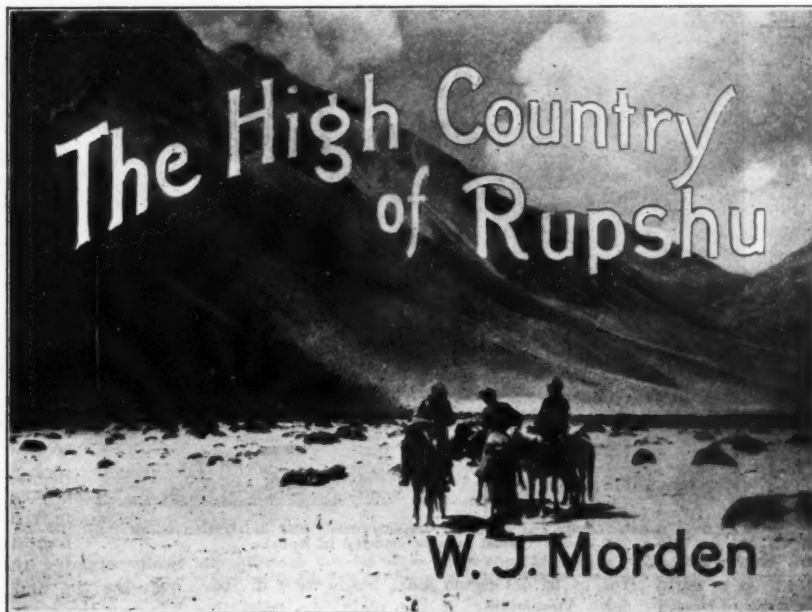
A FEW miles above Hemis we left the Indus valley and turned southward, leaving the main caravan route to Lhasa. It is in the high country of Rupshu that the best ammon are found. The trail winds for some fifteen miles up a narrow gorge, where the strata, in places, are nearly vertical. Weathering has caused some spectacular effects along this canyon, which are heightened by the varied shades of red and green in the rocks.

I had begun to think that it looked like a very rugged country for sheep, when late in the afternoon we suddenly emerged from the gorge and ahead saw high rolling hills. At a little village, the last permanent habitation for many miles, we changed transport and pushed on to where some ammon were reported to have been recently seen. It was after dark and snowing hard when we made camp.

A peculiarity of Ladakh is the wind. This wind is practically always present and is the greatest hardship of travel in this land. It was one of the most difficult and unpleasant things that the members of the Mount Everest Expedition had to face. Wool will not keep it out; only leather or very closely woven cotton drill afford any protection from its penetrating chill. Also, I found that living for some weeks at over 16,000 feet rather lessened my resistance to cold. Then, too, I found difficulty in sleeping well and this affected my nerves to some extent. At the time I did not understand the reason for my being so irritable, but I later learned that the members of the Mount Everest Expedition experienced much the same sort of thing, though, of course, they were living at much greater altitudes than I.

An ammon block comprises a large area. Were it not possible to have riding ponies, it would be very difficult to cover the distances necessary to properly prospect such a country and one's chances would be greatly lessened. It is chilling work, sitting in the saddle in that icy gale, nor can one warm up much by walking, for at that altitude one's pace is very slow. Frequent halts to examine the ground ahead with the glasses do not tend to warm the chilled extremities, as the wind is always present.

Ovis ammon hodgsoni, the great Tibetan argail, or nyan as the Ladakhis call him, ranges, north of the main Himalayan axis, through Tibet, part of Ladakh and part of Sikkim. In winter they are said to descend to about 12,000 feet, though where, in the part I visited, they could find any place that low, I cannot imagine. All of that country is about 14,000 feet, most of it above 16,000 feet. The



Title cut shows a scene near Pan Gong Lake lying between Changchenmo and Rupshu and described in Mr. Morden's last installment. Illustration below shows type of firewood used in this country. The campfires are not very large, but it hardly pays to attempt to cook beans in this country anyway.

stony hillsides support in places a sparse growth of grass, which seems to form their food. Burrhel also range there, as do kiang. In two or three localities, on flats around salt lakes, are found Tibetan gazelle, locally known as *goa*. Many large rabbits are seen in Rupshu. They make a welcome addition to the pot, as do the ram *chikor* and great Himalayan snow cock, which are found sometimes in large coveys on the hillsides. Wolves are fairly common. I heard them howl on several occasions and altogether, saw six, of which I killed one.

The nyan is said to be the largest known sheep, even surpassing the great Pamir sheep,



the *ovis poli*, in size. He is certainly a magnificent animal. Standing four feet at the shoulder, measuring about six feet from nose to tail-tip, massive in build and carrying regally his tremendously heavy head, he is a sight not soon to be forgotten. The horns are coarsely wrinkled in front and vary from about 16 to 18 inches in circumference at the base. Their curl is rather close, not unlike that of the Rocky Mountain sheep, the *ovis canadensis*. It is unusual to find big ammon heads that are not broken at the tips. In each of my specimens one horn was badly broken, while one of

them had at least three inches gone from the other tip. There have been heads of over 55 inches recorded in the past but nowadays anything over 42 inches is considered good. In color the nyan is grayish brown above, whitish below. Old rams have a white ruff around the neck and a dark crest of stiff hair along the back. The throat, chest, belly, and inside of the legs are white and there is a white patch on the rump.

I believe the nyan is the most difficult animal to stalk that I have ever hunted. It is not that he is more alert or has sharper senses than our North American sheep, but that he frequents a more difficult country. Nyan are almost never found in a position that can be approached. I twice got close to them but one of these times was pure accident. My kills were both at long sporting ranges, in each case over two hundred yards.

From our camp near Gya we prospected the country for several days, but it was bitterly cold work. The biting wind drove through woolen clothing without difficulty, though one's feet suffered the most. I was wearing ordinary nine inch laced boots with two pairs of heavy woolen socks but I found these insufficient, as my feet were almost constantly numb. Fortunately I was able to bind some sacking around the outside of my boots, which helped considerably. The first day we saw ten sheep, four of them rams that seemed to carry heads above the lawful minimum of 38 inches. I wanted something better, however, so we let them go. Another day we saw, on rounding a shoulder of a hill, three rams high above us. Through the glasses one of them looked to have a big head. They were hopelessly out of range so we waited while they slowly worked over the crest. When we, in turn, reached the summit, they had disappeared among a maze of hills and valleys, where it was useless to attempt to follow.

After several more days of continuous hunting that yielded no sight of sheep. I

determined to push on over the Tagalung La, a 17,500 foot pass, into the country around the Tsokar Tsolu, which is a small salt lake, in a wide alkali flat at 14,900 feet altitude. It is on these flats that a few Tibetan gazelle are still found. The three day trip over the pass was uneventful, though much of the scenery was very beautiful.

The goa, or Tibetan gazelle, is I believe, fairly common on the high plains of Chinese Tibet. There are, however, only two or three small areas in Ladakh where they are found and even in these places they are not present in large numbers. The goa is not difficult to approach, though it is not so easy to make a stalk when they are found out on the open plain, as sometimes happens.

The coloring is generally fawn above, which merges into white below. There is a white disk around the tail, which is short and tipped with black. The goa is slenderly built. My specimen measured 24 inches at the shoulder and 40½ inches from snout to rump. The horns curve backwards and then sharply forward. The front surfaces are ribbed. Twelve inches or over is considered a good head.

Our camp was some five miles up a valley from and about 1,500 feet above the lake but by climbing and following a ridge near camp, we were able to get an extended view over the wide expanse of alkali flat that surrounds the rather beautiful body of water. An early morning watch from the ridge rewarded us with the sight of seven gazelle travelling slowly across the plain. While we watched, they stopped to feed, though too far away



Ovis Ammon Hodgsoni killed by Mr. Morden. The illustration below shows typical ammon country in Rupshu

for us to determine what heads were in the lot. Descending to the plain, we tried to close up on them, keeping to a dry wash that seemed to run in the proper direction. The cover soon gave out so we backed up and started a detour. While we were doing this the herd must have moved and caught our wind, for we suddenly saw them running across our front, about 150 yards away. I fired at the leader, which the shikari said had a very good head. But the target was small and moved too rapidly. We watched them disappear among some low hills.

After giving the herd some time to recover from their fright, we followed over to where they had last been seen. It was a tangled mass of hills and valleys and though we finally located the goa, they seemed to be still restless and were too far away to make a stalk possible that day. On the way back to camp we saw another lot of four, but it was too late to attempt to get closer.

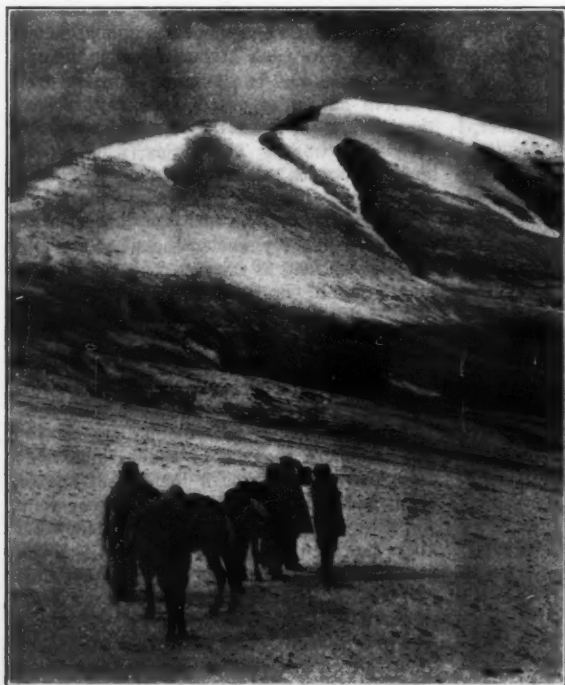
From the information I had obtained from the shikari, I figured on taking not over two or three days for goa hunting. Each night was getting colder and the days were threatening. On the heights there had been freezing temperatures during the day, and the same at camp in the night, ever since we had come up to the high country. But by now my thermometer was showing a minimum of slightly less than zero and the wind was a constant annoyance. It began to look as though we might be getting some real weather shortly, it being early October. We still had our ammon to hunt so I decided to count on only two more days for goa. We had seen ammon on the hills nearby but as it was out of my

ammon block I could not do any hunting of them there. Kiang were all about and at the shikari's suggestion, I shot one near camp for wolf bait. True to his prediction, the following morning we went out and found a wolf on the kill. He was a full grown dog wolf but not nearly as big as the timber wolves of North America. He measured only five feet, tip to tip. The color was gray, tinged with red. The so-called snow wolf is said to be a variation of the same breed but has a lighter colored coat.

We were fortunate on our next day's hunt for goa, as two were seen from a distance, lying on a rock plateau. There was a ridge running from where we were to near the animals and it was easy to traverse back of it until practically opposite their position. We crawled over the top and soon located one gazelle, lying on the plain about 75 yards below us. He saw us and got slowly to his feet, making a perfect target. It was a very easy shot, so easy, in fact, that I was thoroughly surprised and disgusted to only wound him in the leg. He began to run. I fired twice more and was amazed to see the shots go wild. Then, as I ejected the empty shell, I had the disconcerting experience of having the Lyman sight drop off my Springfield. Fortunately there is a King folding open sight on the barrel, which I raised and with its aid, stopped the goa. The Lyman had previously come loose, but I thought I had been able to tighten it permanently. It must have been loose and badly out of alignment during my first three shots. An examination showed that the short screw had broken and that the threads on the other had stripped. Unfortunately I had never contemplated such an accident, so had no screws to fit.

My field notes show that the goa was finally stopped at 150 yards and that the altitude was 17,000 feet. One horn measured 12½ inches, the other slightly over 12 inches. The spread was 4½ inches. It was a very good head, as exceptionally large ones are now scarce in Ladakh. Most of the largest have been killed in Tibet, but, of course, not in recent years. I was disappointed in finding the meat of the goa very poor eating. It is very soft and almost tasteless.

On the way out from Tsokar Tsolu I was able to get another very fair burriel, out of a herd of twenty-nine. Four burriel are allowed on a license, but this seems too many, although they are fairly plentiful. Just before leaving we saw a bunch of twenty-six ammon, feeding some distance out on the flats. They were mostly ewes and small rams, but there were four fair rams among them. These last were some distance from the others and by keeping behind a low hill I was able to approach to within about fifty yards of them and to take a photograph before being discovered. They made a beautiful sight racing to the safety of the hills.



When we arrived at our previous camp beyond the Tagalung La, we found that there had been a considerable fall of snow since our departure, while the weather was noticeably colder. For the first few days we saw no ammon and it seemed as though luck had definitely turned against us. One day, however, a bunch of eleven were seen, far across a deep valley. We made a long detour, taking most of the day, in order to reach a point from which there might be a chance of getting a shot. They were on a hillside slightly below us and across a nullah. One carried a head that looked to be exceptionally heavy. One horn seemed to come around quite to the eye, though the other side appeared to be broken. Still, it looked like a very good head. They were feeding gradually downward and coming in our direction and we were hopeful that they would at last reach the bottom, from where we would be screened by a curve of the hill on which we were. This would give us an opportunity to slide down to within about 100 yards. As they kept steadily working lower we began to hitch ourselves downward, leaving bits of clothing and skin on the sharp rocks. All was going well when suddenly, from nowhere, it seemed, a kiang dashed into view above the sheep. He must have been standing behind a big rock and had escaped our notice. He rushed madly along above and parallel to the rams, which took fright and promptly started up-hill, the big fellow leading. There was nothing for us to do but light a smoke and wish them well.

On three other days we got sight of this same lot and once we thought we had them. From the top of a ridge I happened to see them, feeding at the bottom of a deep valley where there seemed good cover between us and their location. The wind, a gale as usual, was right, though we had to guess at its direction in the valley below. We very carefully but quickly descended. They could not possibly have seen us, but a cross current must have carried our scent to them. At any rate, when we arrived at the bottom they had left, nor did we see them again for several days.

Our time was getting short, as the weather was daily becoming more threatening. Every day violent snow storms drove up over the mountains. Sometimes they came our way and we were forced to take cover in the lee of some outstanding rock, only partially sheltered from the gale. For two days we were held in camp by a continuous snowfall, accompanied by low clouds that made hunting impossible.

We gave up looking for the lot that had eluded us and began to prospect in another direction. It was a big country in which to search for any particular sheep, but I had hopes that we might be able to locate the three rams we had seen on our previous visit. One



Himalayan wolf killed in Rupshu. The illustration below shows Mr. Morden with goa or Tibetan gazelle killed in this same country

afternoon, as we were returning to camp after a particularly hard climb over a glacier to search a valley beyond, we suddenly saw three sheep watching us from the heights above. One carried a big head, the other two being young rams. They began to climb and soon passed out of sight over the ridge. Although it was late in the day we hurried upward. They had travelled rapidly, once over the top, and we saw them, half a mile or more away, across a snow covered plain. It was too near dark to follow, so we watched them until they disappeared, noted the direction and continued to camp.

The next day we went directly to where the three rams had been last seen. At first they seemed to have left the country. We slowly worked along the hillside, using the glasses and telescope frequently. The shikari was examining the country ahead when I suddenly became aware of two sheep, lying on the sand at the bottom of the valley, about 800 yards from us. I called Rahim Joo's attention to them and we crawled as close as we dared. They were two fair rams, but did not belong to the three we had seen the previous day. While we were watching them they arose, and I thought we must have been discovered. They did not look our way, however, but seemed to be intent on something on the opposite hillside. We searched it carefully and at last made out a third ram, about half way up the hill. He had undoubtedly been watching us and had passed a call or signal of some sort along to

the others. The two below joined this chap and the three steadily mounted to the top and passed out of sight. As they were crossing several large patches of snow we had a good opportunity to study their heads. The leader carried a very massive pair of horns, though I was not able to accurately judge their length at that distance.

Our problem was to reach the opposite ridge before they had traveled too far. It was not a difficult climb but at the altitude, 18,000 feet, it was hard work to make speed. It took us nearly an hour to reach the top, which gave the sheep a good start. Traversing slowly along the mountainside, we hopefully searched the next valley and were at last rewarded by seeing the three rams, lying near a large snow slide at the further end of the valley.

There was no possible way to approach them where they were, so we settled down to watch, trying to make ourselves as comfortable as possible on the sharp rocks. The wind, of course, precluded any great comfort.

The vigil lasted about three hours. Then the rams rose and, fortunately for us, began to feed slowly toward our side. They passed behind some rocks and we dashed along our hillside. They came out into the open again and we at once froze. Again they went out of sight and again we hurried forward. In this way we managed to close up to within about 300 yards, but were still some distance above them. Rahim Joo wanted me to try a shot from the distance but I was unwilling to risk it. While we lay there waiting, the three rams we had seen the previous evening appeared from up the valley. The bigger one had a good head but not as good as the largest of the three we were stalking. The advent of this second lot, however, somewhat complicated matters, as we could hardly hope to escape the attention of one bunch or the other.



Fortunately, the three we were after kept moving toward us. We waited until they disappeared under the cliff below us, when our chance had arrived, it seemed, to get a close "sitter". Easing ourselves over the rocks, we worked slowly downwards, trying to keep as inconspicuous as possible. At first the three in the open paid no attention to us. Then, just as we were hoping that we would not be seen, they became startled and began to run. That finished the stalk and we slowly arose. The three we wanted were about eighty yards below, but they were bunched so closely it was impossible to pick out the best and equally impossible to hit any one without danger of wounding another. They stood motionless, staring at us, for a moment. Then they dashed off across the valley. The shikari said the second one was the largest, checking my own judgement. I fired, mentally cursing the loss of my Lyman sight. It was not easy shooting in that wind at a running target, but even so, I was not proud of the work I did with the open sight. At about 250 yards I managed to smash a hind leg. The ram slowed and I was able to get in a body shot that put him down. He had, by then, crossed the valley and climbed to a bench, some two hundred feet above the bottom. We went up to him as rapidly as possible and another shot at close range put him out. The head measured 45 inches by 40 inches by 17½ inches. Both horns were broken at the tips, the longer having about 1½ inches gone. Either by fighting or by a bullet, a large piece of the sheath had sometime been broken from the back of one horn, exposing the core for about four inches. It was an old break, much weathered and discolored. The head was very massive and showed much battering from fighting. The annular rings showed his age to be about ten years. My aneroid gave a reading of 18,600 feet at the point from which I fired.

After several more fruitless days, we again located the lot of eleven that had proved too much for us before. This time they were seen from a distance, just at evening. We watched them cross over a saddle into a valley beyond and next morning were able to locate them easily, lying among broken rocks in the middle of a sort of bowl. We detoured, climbing to a shoulder of the mountain at the nearest point to them, though even then they were about six hundred yards from us and quite a little below. From where we were we could watch them but could approach no closer. It became a matter of luck as to which way they would move when they arose. We had to chance it, however, as there was no cover anywhere within range of them. One ram was seated on his haunches like a dog. I had previously seen an ibex in Baltistan do this, but except for these two instances, I have never seen unwounded horned game do so.

It was a long cold wait of about three hours before the sheep got up, one by one, and began to feed. They apparently found little to their satisfaction where they were, for gradually they drifted toward our side of the val-

ley. Our anxiety increased. There seemed to be some good feed just below us but it was too much to hope that they would come that near. As they approached our position we became exposed, though it seemed possible that we would not be noticed if we remained quiet. Fortunately the wind was in our favor. At approximately two hundred yards they seemed to find good grazing, as they stayed there for nearly an hour. Then a few began to wander back and it seemed improbable that they would approach closer. I had marked and followed the big one, who was a little to the left and about twenty-five yards behind the others. My position was cramped but could not be bettered, and any movement would have instantly been seen. The first shot was just under the body; at the next he jumped and slowly sank. The sheep were at first puzzled as to the location of the sound, for they bunched and stood looking fixedly in different directions. At the second shot they scattered and ran, some continuing around the valley to the opposite ridge, some scrambling directly upward. They made a beautiful sight and we watched them until they disappeared. Then I turned the glasses toward where the big one had been lying. He had seemed finished at least thoroughly anchored. He had, however, traveled some distance and it took us quite a while to come up with him. My shot had smashed the left shoulder but had not penetrated into the chest cavity. Again it was impressed upon me never to take my eyes off a kill until no question of its death remains.

This ram proved to be, from the annular rings, fourteen years old. He was an old batter, scarred and grizzled, and was blind in one eye. The other eye had been put out, though whether it had been done by the splash of one of my later bullets, was hard to tell. I had fired at him from some distance while we were trying to come close and a couple of the shots had struck on the rocks near him. It seems improbable that he could have long been completely blind and have travelled over the rocks as rapidly as he did. Both eyes certainly looked to have been blind for some time, however. His horns were very heavy, though a half inch less around the base than those of the first. Both horns, as usual, were broken, one being but 41 inches. At the break it was five inches in circumference. The other horn measured 46¾ inches but had nearly four inches gone from the tip. Judging from other mountain sheep I have weighed, I guessed his weight at about 350 pounds. The aneroid showed it to be just 18,900 feet where he was finally put down. He was a thoroughly fine trophy, himself well worth a trip into Ladakh.

My return journey to Kashmir was uneventful, except for its speed. I sent the outfit back, via Suru and the Bhot Kohl, to await me in Kishtwar, and as I had some business in Srinagar, I pushed ahead, travelling very light and using the rest-houses along the Treaty Road. By changing ponies at each stage I made 300 miles, from camp near Gya to

Srinagar, in just a week. On good horses it would have been easy and pleasant but it was hard work with the little Himalayan *tats*. I arrived in Kashmir on October eleventh, rather tired.

A hunter going into Ladakh in the fall should be certain to take along some sort of windproof clothing. I believe a closely woven cotton drill parka, worn over woolen clothing, would be serviceable. A trench coat with fleece lining would be very handy, as it would also answer as a slicker. Some sort of slicker should be taken, at any rate. The *pushteen*, obtainable in Leh, will keep out the wind, but usually the sheepskins, from which they are made, are poorly cured and when wet, smell "like nothing on earth." A warm cap with ear pieces should be taken along but these can be had in Srinagar. An aviation helmet would be excellent, but a double felt hat or a topi must be worn over either cap or helmet, for even up in the high country the sun's rays are dangerous.

For footgear, one's ordinary laced boots, heavily nailed and large enough to accommodate two pairs of heavy wool socks, are good. Something should be worn over them, however, to protect the feet from the cold. A pair of fur or fleece lined flying boots, large enough to go over the leather boots, would be excellent. They should be easily slipped off when necessary to walk. It must be remembered that most of the travel and much of the hunting in Western Tibet, particularly in Changchenmo and Rupshu, where the cold winds are encountered, is mounted. Of course the actual stalking is done on foot, but one is mounted a considerable part of the time. At first it seemed strange to me to hunt sheep while mounted, but the country is very different from sheep country in North America. The distances are greater, and more particularly, the altitude is greater. One's methods must be varied accordingly.

For bedding I found the eiderdown robe perfect. My old robe served me well, though I found that much of the down had worked to one end, leaving the other a bit thin in places. A new one, or one in good condition, would leave nothing to be desired.

No one, who loves Nature in her wilder manifestations, will be disappointed in a trip into Western Tibet. It is not an easy trip but it is one that will well repay the effort. The game there, and in Baltistan, comprises some of the most magnificent mountain animals to be found anywhere today.

EDITOR'S NOTE: Those following Mr. Morden's articles will be interested to know that the Roosevelt expedition now en route for Asia will follow the same trail as Mr. Morden over the motor route from Rawal Pindi to Srinagar, then over the Zoji La and along the Dras and Indus Rivers to Leh. From Leh their trail will probably follow up the valley of the Shyok River and cross the Karakoram Mountains by the Karakoram Pass, as this is the usual trade route into Yarkand and Turkistan. The map in our March 1st issue covers also the country into which the Roosevelt party will hunt



The Webley Air Pistol

By Maj. J. S. Hatcher

Title cut shows the Webley ready for firing, while lower cut shows same weapon "broke" for loading. The target is a 10 shot string made at 10 yards.

WHILE many of our readers are familiar with the excellent and accurate B.S.A. rifle, the chances are that very few of them have ever heard of the small prototype of this weapon that is manufactured by Webley & Scott.

Before describing the Webley air pistol, let us have just a word about the B.S.A. air rifle for the benefit of those who have not made the acquaintance of this remarkable gun. In the first place the name "air rifle" as applied to this gun, is likely to form a very erroneous impression in the minds of those who associate this name with the widely distributed American toy designed to propel BB shot with very uncertain accuracy (or perhaps I should say with very certain inaccuracy.)

The B.S.A. air rifle is really rifled and shoots an oblong pellet of special form with great force and accuracy. My first acquaintance with the B.S.A. was at Caldwell in 1919, where there were several on exhibition, and it was quickly found that the accuracy was there, and that the gun had punch enough to make short work of beer bottles and other fragile and spectacular targets.

The B.S.A. had penetration enough in wood to go through the ordinary $\frac{3}{8}$ inch or $\frac{1}{2}$ inch white pine sides of a grocery box. After vanquishing a number of breakable targets at Caldwell, we found an inhabitant of Commercial Row who was unwise enough to poke fun at us for playing with what he considered a toy. His tent was about sixty yards away, and outside of it on a box sat his wash bowl and pitcher, both made of thick china. This seemed too good an opportunity to be missed, so—swish went the rifle,—and crack went the pitcher, and we had to take refuge in the Ordnance Storehouse to avoid actual bloodshed.

Not the least of the virtues of the B.S.A. is the fact that its discharge is almost entirely noiseless, which makes it ideal for neighbors' cats. This is the purpose I used it for in a very thickly populated town, and never a sound was heard.

During his ballistic experiments at Miami, Major G. P. Wilhelm used to keep one of

these in his tent, and I believe he even took the ballistics of it on the Miami Firing Range. One day a friend of his strolled in, and being informed that it was an air rifle, he took various and sundry shots at different articles along the landscape. One of these happened to be a half grown pig nosing around some distance away from the tent. After one shot he was warned that the gun shot harder than the ordinary air rifle. Unfortunately, that one shot was not only enough, but one too many, as the next day the pig was found bottom-upwards a short distance away.

At Camp Perry a couple of years later, I was going down the line with one of these B.S.A.'s when I met Al Woodworth, and as is his custom, he began to look for something to poke fun at. There was a small sparrow sitting on the post about 75 feet away, and Al said, "De you recon you could even attract his attention with that?" I told him that it might be possible to make the bird fly away, and offered to hit the post to prove it. I aimed a little above the bird, and fired, hoping that the drop of the shot would strike on the post and scratch him off. But to the surprise of both of us he fell down on the ground, and on going up to him we found that the shot had struck him in the head and had practically gone through.

It can well be seen that a gun like this can be very useful especially when it has very fine accuracy. Moreover there is no cleaning or dirt connected with such a weapon, as all that is necessary after shooting is to see that the gun is oily enough so that it will not rust, and the protection of the barrel merely requires a drop of oil in the breech, which can be distributed throughout the bore by snapping the gun once.

As no powder is used, the gun is not a firearm. Moreover the ammunition is exceedingly cheap. This is the finest kind of a gun for shooting rats and other pests, as the fact that it makes no noise prevents them from being scared off when one shot is ventured.

From time to time I have seen English advertisements of air pistols built along the same lines, and have often wanted to try one, but my first actual opportunity along this

line was with the Webley air pistol, which I saw in the Hoffman Arms Company exhibit at Camp Perry last year. Of course seeing one meant that I had to investigate it further, which I have since done, even to the extent of taking the velocity of the bullet.

The pistol is made in the standard air rifle calibers of .177 and .22. It is operated by a plunger in the main cylindrical portion, which is actuated by a heavy spring.

Releasing the barrel catch at the rear, and then lifting the barrel upward, as shown in the illustration, draws the plunger forward, compressing the main spring. At the completion of this motion, a notch in the plunger catches on the trigger, holding the weapon in the cocked position.

If a pellet is inserted in the breech end of the barrel, and the barrel closed down, the gun is ready to shoot.

When the trigger is pressed, the plunger is driven to the rear end of the main cylinder, compressing the air, which escapes through a small hole into the breech of the barrel, driving the pellet out with considerable velocity.

The discharge is practically noiseless, and there is no recoil as such, although the action of the spring causes a "jumpy" feeling.

The barrel is finely rifled to take the



standard B.S.A. air rifle pellet, or the Webley pellet, which, as far as I can see, is exactly the same as the B.S.A.

For the benefit of those who are not familiar with the B.S.A., it may be described as a lead slug, round in front, and hollow in the base. Instead of being cylindrical, the slug is squeezed in at the center so that the only points where it rides, are at the front end and at the extreme rear, which is flared out like a skirt to take the rifling.

The weight of the .22 caliber pellet is 14.75 grains, and all of the pellets hold remarkably close (Concluded on page 20)

A Small Town Rifle Club

By E. M. Farris

A COUNTRY railroad terminal ought to be fertile soil in which to develop a rifle club. "Down East" such seems to be the case, but Crestline, Pennsylvania System freight and passenger terminal in north-central Ohio, had a hard time getting to the "sprout" stage. A few enthusiasts set up some make-shift plank back stops in the basement of The Railroad "Y" in 1922 and proceeded to riddle them in the most approved fashion. Then a strike of shopmen blew the whole works higher than the proverbial kite. Not for long, however, for the germ had been implanted in the minds of a few who again came together, pooled their ideas as to best ways to build an indoor range, secure a membership and formulate a program. The afore-said basement offered a fine range, but first had to be cleaned of an accumulation of debris. It was finally done and declared fit to begin practice on in earnest.

As one views those early days, in retrospect, there surely were some monstrosities brought out and called "rifles." One was an ancient type .22 Stevens "shot gun"—so marked on the barrel. All models and makes of the tin can knockers came, were tried out and ruled off—most of them in a deplorable condition internally. We asked for matches with one or two clubs that had been organized a year or two, clubs that had begun to collect some real range guns. We got beaten, of course, but that only whetted our appetites for revenge. Revenge meant that we would of necessity need better equipment. Well, the Savage N. R. A. was a mighty popular arm for some months, and still is with some of our best shots. However, a heavier and better balanced rifle was needed. All elements agreed to that. As a natural result two or three of the Winchester 52's were soon noticed on the range. The Springfield .22 would have been popular had its virtues received the same publicity that the 52 had, because it met with approval wherever our boys handled it on other ranges. In time the club's equipment became quite typical of that of the older clubs of this section, except that even to this day the telescope sight is considered "an old man's prop." That this impression will pass with the years is my opinion, as I begin to feel the need of optical help, myself.

The advantages of membership in The National Rifle Association early appealed to Crestline's shooters. The club voted to affiliate. In due time the equipment came. Those muskets met with cold shrugs from the boys whose good right arms were something less than four feet from "tip to tip". Plainly, too much length of stock and too much drop. Otherwise, not a bad gun. The Springfield 30's have never been as popular as they should be on account of poor range facilities. A quarry with a none-too-high bank, 220 yards across, with no opportunity to dig a pit in front of the target—this was a poor combination for

high caliber stuff. A few still hope for a range that can be made "something like". It's been hard to secure individual members for the N. R. A., but three of us did get into some matches the past season.

The future doesn't worry this club! We confidently believe that the day will come when we old heads can and will sit back and be content with coaching much better men. It came about this way; we heard of National



Miss Helen Lightburn and the targets she made on her fourth visit to our rifle range.

Rifle Day, promoted by the Winchester Junior Rifle Corps last spring. We took a group of kids out a week previous to that date for a preliminary. It went over nicely. Then we made quite an affair of National Rifle Day—having two or three matches for the boys with a shoot-off for local champion; a shoulder-to-shoulder match for seniors with a neighboring club and a cook-your-own lunch about sun-down where a talk on the advantages of rifle shooting was made by an Army captain. It proved a big day. Then, it became necessary to raise the funds to send our local junior champion to the Junior National Matches at Camp Perry. Asking but two bits from shooters and others, the required amount was soon in hand. Came the Junior events at Perry. I was assigned to Y. M. C. A. duty there for some eighteen days during which the juniors came and did their stuff. Two of our boys put in their appearance. They worked hard and made creditable showing. We stood by and learned much, even so. Back home about the middle of September and we got right into the W. J. R. C. Many boys came into the "Y" that they might get into the newest "fad." Most of these same boys have

remained to become fine, all-round members, the older ones developing into a team that has been able to stand among the "high four" in junior rifledom. The club boasts Ohio's Junior Champion in its membership.

Verily, it has been a big season in Crestline for the sport. The senior club recently met and voted to accept, without membership fee, any junior who had attained the expert rifleman rank in the W. J. R. C. Six are eligible. Their dues will be but ten cents per month until they have become eighteen years of age, when they will be required to pay the senior dues and, also, be eligible to full senior privileges. This, brother riflemen, is going to be one of the biggest things we could do for the future of the game in Crestline! Already one of these chaps can make first team and two more are likely to crowd someone out for a place on our second team. And these kids have learned under most advanced instruction (pardon our pride) so far as it can be gotten at Camp Perry and through reading latest dope in instruction pamphlets. We expect two teams of these chaps to make history when they compete at Camp Perry in Junior Matches next September.

Just now a group of girls is clamoring for instruction and some matches. It is but a matter of days until they will be enrolled as a W. J. R. C. unit and be competing in a schedule of matches with other girls. In a recent match between the seven girls who were in the squad and some of our third-class boy riflemen, the girls came off victors, 124 to 121, X125! This means that four very amateurish girls out of five—high five counting for record—made possibles on the junior target!

Crestline has witnessed two "Little Camp Perry" shoots in the past two years. Our club makes this its annual "big blow" and arranges it for February 22. In 1924 we had but eight teams show up, and distributed some two dozen merchandise prizes. This year ten teams and parts of two other teams showed up and some twenty-eight dollars of entrance fees were distributed among the 112 entrants in the three events scheduled. Always, for this tournament, we plan for a six o'clock dinner with a movie, an entertainment or a good speaker. This year the Hercules Powder Company's film of Camp Perry activities were shown. Our big plans and fond hopes are here given airing, as are some of the kicks that have accumulated in the months past. If it does take from noon to midnight to run off the schedule, who cares? "Shootin' Fools" well expresses it, where small bore nuts congregate for any purpose whatsoever.

The winter's schedule runs about like this; monthly matches in Pennsylvania System's Indoor Program; matches in the Ohio Rifle League schedule, shoulder-to-shoulder or by mail club matches with members divided into A, B and C Classes (Concluded on page 20)

This Matter of Reliability

By E. A. Price

"Ye men of Athens, I perceive that in all things ye are too superstitious."

PERHAPS nothing I could write would incite such a flood of resentment make so many bitter enemies instill black, vengeful thoughts in the hearts of so many of my dearest friends; and create against myself such utter hatred among the pistol clan generally—as the facts I am about to relate. God helping me, and the ghosts of the Frontier sparing me, I am going to tell the truth about the Colt's Single Action.

Several discussions on this venerable revolver have appeared in THE AMERICAN RIFLEMAN of late, and to many of us they were most enjoyable. I am tempted to withhold my remarks a while. It grieves me to think that no more shall we be entertained with the arguments of the old-timers: That with these disclosures the burning question, "Is the single action obsolete?" must come to a close—settled definitely, once and for all time.

"No more—no more—no more,
Shall bloom the thunder-blasted tree,
Or the stricken eagle soar!"

* * *

IF I were going into a far country devoid of gunsmiths and spare parts, where life depended on a trusty side arm, (same to be used at all seasons of the year and in all conditions of weather—including rain, sandstorm, and blizzard), what weapon would I select? Without hesitation, I reach for a Colt's .45 Automatic. Second choice would be a Colt New Service. Last choice—the old Single Action. When that rough crew of vulgar-looking persons has finished crowding out the door, and the aisles are clear I will proceed.

In connection with the reliability question, we must consider how much the gun is to be used. If they are seldom fired, never snapped in practice, or used chiefly as objects of sentimental reverie before the fireside, I will admit that the old S. A. is the most reliable handgun made. It is the most reliable *as long as the parts do not break*. The parts are few and simple, but the springs are of the flat type; a type no longer used when it can possibly be avoided; a flat spring being looked upon with much the same horror as a flat tire.

The Government Model .45 contains but one flat spring—the three-pronged sear spring—which is so long, and has such light duty to perform, that it never gives trouble. The S. A., on the other hand, contains several flat ones which are comparatively short, and which undergo considerable strain each time the hammer is raised and lowered; and quite frequently they break under the strain. Lee Knapp, the Denver gunsmith, has a boxful of these parts which have given way. Having owned and used around thirty of the S. A.'s, I was able to add materially to his collection. I have used even more of the .45 Autos., but

have yet to see or hear of a broken part. Lee's box for broken .45 Auto. parts is as empty as the cupboard of old Mother Hubbard.

In the S. A. it is hard to say which is the worst offender, the bolt spring, or the spring-like bolt itself. The former, due to its stiffness and stubby build, generally expires first; but its breakage is not so serious, since the gun may still be fired by setting the cylinder with the fingers. The bolt breaks because its tailpiece, (which is sprung inward each time the hammer is lowered,) is almost completely severed by the bolt screw-hole; and, as is the habit with all springs, the strain is taken at that weakened point. If this prong doesn't break off, it may become so worn on the outer edge that the cam on the hammer (under the half-cock notch) fails to catch when hammer is retracted. In either case, the cylinder is locked for good, and can be released only by dismounting the gun; and by "dismounting" I don't mean removing the cylinder.

The trigger spring does not break so frequently as the others. Both it and the bolt spring are poorly made; they being either untapered or tapered the wrong way. Any good mechanic will tell you that a spring should be so tapered that it is thickest where the strain falls hardest; namely, at the rear end. Many bolt springs are both wider and thicker at the tip than they are back near the screw. The wise S. A. man files the bolt and trigger springs to the correct shape, thereby greatly lengthening their lives; but nothing can be done to relieve the suffering of the bolt. Hand springs have been known to break, but the occurrence is infrequent. Main springs break but rarely.

The large number of screws does not constitute a serious fault; but at times it is a nuisance. Snapping the hammer soon loosens every screw in the gun. Much firing has the same effect. Some cartridges jar them loose quicker than others: a .44-40, in which I fired smokeless powder and metal-cased bullets, used to shoot loose every time I took the old gun out. The external screws are easily tightened, but when either the sear and bolt spring screw or the gate catch screw comes loose, more time is required. Now I hope I haven't overdone this little matter of the screws—after all, there are only fourteen of them.

There are no screws in the mechanism of the .45 Auto.; the only four on the gun having as their sole function the securing of the handles. Don't mistake the magazine catch lock for a screw—it looks like one, is frequently mistaken for one, but isn't one.

I couldn't help overhearing a few chuckles when I spoke of snapping the hammer. I know it is not done by the best people.

When, in our youth, we acquired our first gun, the first lesson was, "Never point the muzzle at anyone"; and lesson number two, "Refrain from snapping the hammer!" And the second lesson, being conceived for the welfare of our beloved gun, was held to be infinitely more important than the first. There is good reason for not snapping a rifle handling rim-fire cartridges. The old-timers were also wise in refraining in the case of their single actions. But we have guns today that may be snapped in practice without injury.

I once tried to wear out a Colt Army Special by snapping it hundreds of times daily; the idea being to develop my muscles for double-action aerial work. This gun was set aside for the purpose with the belief that it would be ruined in a short while; but after weeks of snapping, the gun was as good as new. I only took care to keep the working parts well oiled. Ed. McGivern, that king of aerial shots, snaps his Officers' models unmercifully; at least he did when living in Denver.

For practicing slow fire gallery work with the D. A., one can fit a piece of wood or rubber in the back of the frame in such manner that the hammer only falls about one-fourth inch; but this cannot be done with the S. A. If selecting the D. A. type of gun, I would want to become proficient in double-action shooting; and this is best accomplished by much snapping practice. Were I choosing the S. A., the desire to handle it rapidly would lead to snapping, sooner or later. The .45 Auto may be snapped indefinitely without harm. Yes, I do like a gun that will permit of practice though it (and the pocketbook) be empty. Needless to say, I snap only those guns to which I hold clear title. Where I used to look upon a man snapping his gun, and think, "He knows nothing about guns," I now say to myself, "His shooting-muscles are fit; he must be a shooter rather than a collector of antique firearms." I would rather wear out a hundred guns in practice, than preserve one gun a lifetime and never learn to handle it well.

Then I have other objections to the S. A., aside from its terrible unreliability (don't take it to heart). The theoretical loss of accuracy due to the slow fall of that heavy hammer, I will not go into. So far as I have observed, the S. A. gives as small groups as the D. A. handling the same cartridges. There have been times when I had the feeling that my hand slipped up on the grip a few hundredths of an inch while the hammer was falling; and that I got more high and low shots than I did with the New Service, firing on the eight inch bull at fifty yards. Yet I am in no position to say that the older gun is less accurate.

I do think that finer triggerpulls can be put on the N. S. than on the S. A. It is hard to make the pull of the latter weapon short and snappy. That is because the sear is necessarily so blunt. If it were tapered down thin, like that of the N. S., its narrowness would cause it to soon wear off to such an extent that the pull would be changed. The presence of the safety notch and half-cock notch makes necessary a thick sear; for even an experienced single-action man will let the hammer slip some day while trying to do fast work with cold fingers, with disastrous results to the sear and notches. A wizzard like Lee Knapp can put a most satisfactory pull on the old smoke-wagon; yet it will be of a different quality from the snapper let-off of the D. A. gun. Also, I prefer the feel of the wider trigger found on the modern revolvers.

Now comes the important matter of speed of fire. Trouble seldom comes singly; so often, situation demanding gunplay calls for more than one shot. This state of affairs may have two causes. First, our hero may score a total miss on his opponent, in which case he will want to rectify his mistake in all possible haste. Secondly, the obnoxious one may have a large following, heartily in sympathy with the cause. In the good old summertime, when the fingers are warm and nimble, the S. A. may—in the hands of an expert—send forth leaden pills at a very decent rate of speed. But did you ever try to hit a can in the air twice with the S. A. when the hands were cold? Fast cocking is impossible when the hands are numb. I demonstrated to my satisfaction, last winter, that good rapid-fire work can be done with both the automatic and the D. A., when the fingers are too stiff with cold to cock the S. A. (except by using two hands, which is too slow for some situations.) I am aware that the Auto. can be shot faster than is practicable, but the experienced man does not so fire it. We often see the statement that on account of heavy recoil, the big D. A. is no faster for aimed shots than the S. A.; that the latter may be cocked without loss of time while aligning the sights. Don't let them kid you; just try hitting that can three or four times while in the air with both guns, and be convinced. Triples are easy with the big New Service. It is my opinion that most men are satisfied with too low a standard of speed in the hand-gun. In many cases, I believe it is due to their having never experienced the craving for speed which attends a vicious encounter with two or more men at one and the same time. One may go on for years, undecided as to which sidearm is best suited to his particular hand; but let danger threaten, let him get into a situation where it appears that somebody is going to die, and without hesitation he picks the one and only gun for him; and sentiment will play no part in his selection.

What of the quick draw? It is of the utmost importance; and were the .45 Auto. slower in this respect than any other pistol in the world, I would discard it. Naturally, the Auto. must be carried with hammer at full cock if fast work is to be done. My guns are never seen with hammer in any other

position. I never have to pause and debate whether it was left fully lowered, in the safety notch, or at full cock. A flip of the thumb as pistol swings into position, and the war is on. The only objection to this practice is the frequent need of explanation to the gentle souls who rush up in wide-eyed consternation and exclaim, "Your gun is cocked!" The person who is afraid to carry the Government Model cocked, with two safeties in operation, should not venture out of doors; his hide is too valuable. Fitzgerald, the expert of the Colt factory, draws the .45 Auto. and makes dead-man hits at ten yards in .35 of a second. At a later date, I intend to discuss the various ways of carrying and drawing that pistol.

Let us consider the reliability question without regard to broken parts. The N. S. revolver is not quite so simple as the S. A., yet is far from being complicated. As with the other models, I have possessed over thirty of the N. S. guns, and have the greatest respect for them. Who has actually seen one tied up by sand or dust? I had one that had been in the Pueblo flood, and all inside working parts were coated with rust; yet it worked smoothly without cleaning. One day when the thermometer said 34 degrees below zero, I soured that gun inside and out with Rem-Oil and set it outside the window to cool off. I returned in about an hour; my eyebrows and lashes white with frost. The moment I brought that gun into the warm room, it turned pure white; also started to freeze to my hand, but I dropped it in time. Quickly slipping on some gloves, I tried the double-action feature, and everything worked O. K. The oil had thickened to about the consistency of vaseline.

When Uncle Sam suddenly found himself in need of heavy revolvers in the Philippines, he chose the N. S.; and according to all reports, it performed in a reliable manner. Reports from our soldiers in Mexico, in regard to the .45 Auto., have not always been to that gun's credit; but consider the circumstances. The poor pistols were carried in the open, subjected daily to clouds of dust, and darned little attention did they receive at night. I have always believed that under the same conditions, I could keep that Government Model in perfect working order. In the first place, a little respect for the gun would move me to carry it in out of the weather: I would do as much for the old single-action. No man would carry his watch in an open holster. If one is so little concerned about the welfare of an instrument designed for his protection, he deserves the results of his neglect. Even were I forced to carry the Automatic *openly* in a dusty country, I feel sure there would be no malfunctions. The gun has been subjected to blasts of sand, after which it operated perfectly.

I have for some time been firing about a case (1200 rounds) of .45 Autos. per month. I have allowed one gun to go uncleaned, experimentally, throughout the firing of a full case. Upon cleaning, I find deposits of powder fouling, unburned powder grains, bits of copper and brass, and other grime spread over

the inner surfaces of frame, slide, and barrel; the heaviest deposits being in the locking grooves of slide. Added to this filth, is the month's collection of dust. No oil was applied in that time. The only failure I have had during the last many thousands of rounds was occasioned by a primer dropping under the rear end of barrel. I take it back, I have had two misfires due to thin primers plugging the firing pin hole with a bit of copper. Upon snapping a second time, all was O. K. These failures were entirely due to faulty war ammunition. When not practicing, I keep my pistols full of good National Match cartridges, which are dependable.

I once had a tiny piece of copper (from the primer) work down into the action of a Smith & Wesson revolver and lodge in front of the trigger in such manner that the action was temporarily put out of commission. Colt D. A. revolvers are sometimes turned out with the *hand* so adjusted that it barely engages the ratchet. Some day it may slip by, so that the cylinder fails to rotate when one cocks the gun. I have had unburned grains of powder get between the hand and frame, causing the former to miss the ratchet. The wise D. A. man looks to the adjustment of these parts on all new guns. To make the hand bite deeper, massage its forward face with a file.

Brand new .45 Autos. have been known to jam, generally due to an imperfect extractor. It may spring inward too far, or not far enough, or its hook may not be shaped properly. Once the gun has proved to be in correct adjustment, the owner may be assured it will give reliable service the rest of its days. It seems to me that in recent years, fewer defective ones are turned out than was formerly the case. If one is not sufficiently interested in his weapon to study it, and experiment a little, perhaps he had better get a S. A.; he will not shoot it enough to break any parts.

To the minds of many, the word Automatic is synonymous with unreliability. The only automatic I am discussing, remember, is the Government Model .45. I have not made a study of either the pocket or the foreign automatics; nor do I contemplate doing so. With the .45 Auto., I have learned to secure the utmost reliability, a very decent triggerpull, the best results in quick draw (both exposed and concealed), and a satisfactory amount of accuracy. I like, too, the realization that I can quickly and completely dismount my pistol, like a bolt-action rifle, should it become immersed in water or dropped in the sand. I would wish to administer an internal bath to even the old S. A. if it were exposed to much sand; but too frequent removal of its many screws causes them to more quickly loosen themselves from vibration and recoil.

The famous peace officer, S. Glenn Young, who killed many men in the performance of duty, and recently lost his own life at Herrin, Ill., carried two .45 Colt Automatics. It isn't as picturesque as the Single Action; not so nice to look at and paw over; and is not associated with stirring tales of the Old West; but it is the most efficient of handguns.

Shots at Soap

By J. E. Brownlee

TRADITION informs us that several years ago a tramp wrote to the manufacturer of a popular soap, and said, "Ten years ago, I used your soap; since then I have used no other." I have no real fault to find with soap, and it is perfectly all right with me for those living in this country to use water if they like it. My shots at soap were for other reasons.

Having had the pleasure of seeing the effects of game bullets on deer the past few years, not to mention coyotes, bear, and turkey (which is "big game" here), I am well prepared to take my father's advice to "believe nothing that you hear and only half of what you see."

I see things largely in the light of Chauncey Thomas, though I do not agree with my friend on all points. We both see our ballistics kicking on the ground. (Why should not they kick with what we pump into them at 50 to 200 yards?) The modern high speed cartridge does not always do what the manufacturers claim, and for some time there has been a tendency of certain manufacturers to put on the market a brand of "Wonder Shells." At least that is what the cook on my last hunt called them, because they made you wonder what was in them.

In the room where I keep my hacksaw and bullet puller, is a most admirable table of trajectories, energies and penetrations, that a human mind could conceive, but as great as is the penetration, some of the table shows not enough to penetrate more than half way through a head the veins of which, at least, are filled with Scotch. This table shows the Service cartridge "as issued" for the Krag rifle, 220-grain bullet and all, with a penetration in $\frac{7}{8}$ -inch soft pine boards to be 58 boards. Also the Service ammunition "as issued," 150-grain pointed bullet, is supposed to wend its winding way through seventy-five of these boards. Two of the members of a rifle club located about Lamar, Colorado, entered into an agreement to disagree about which would penetrate the most dry cottonwood logs. The member who bet \$10 at \$1 per shot on the ability of the .30-06, had read the tables, sideboards, and all the other dining room furniture and was betting on a cinch. The other member lived in the country and owned a Krag, and knew his gun as it performed in the woods. I was present as a judge, and the bugle sounded "commence firing" on a dried cotton wood log 24 inches in diameter. The first shot was won

by the Krag that plowed through the log and into the sand beyond, the .30-06 in a match grade Springfield never did get through that log. Every bullet from the Krag went through. But then, you must remember that the cottonwood is a hardwood. Do you know what a hard wood tree is? The Forest Service of Uncle Sam enlightened me on this as much as a year ago. It is a tree that has a *broad leaf*. This distinguishes it from the evergreens. The name means about as much to me as the ballistics for the rifle. I respect both, but my pocket knife settles the hardwood proposition for my work bench.

an instant and going, and the baby Colt was laid aside and the hunter placed a bullet, that tore the heart half in two, into the deer still running sideways. He went down, but was up and ran 82 yards when he dropped dead. The Krag was loaded with a Service bullet filed off to show a pencil point of lead.

The third deer was knocked down five times in six shots in the timber at from 50 to 90 yards, all shots either when the deer was standing or walking. He got away in the timber and was never found. 170-grain Western hollow points in Krag carbine, was the combination used.

The fourth deer was shot with the Springfield at 70 yards, walking. Soft pointed Newton 172-grain bullets were used. The first bullet exploded his heart, and he went down but was up and running. The second bullet at 115 yards finished him when it took out part of his lungs and about as many ribs as Adam lost in the beginning. This was the largest buck of the lot, but a four pointer.

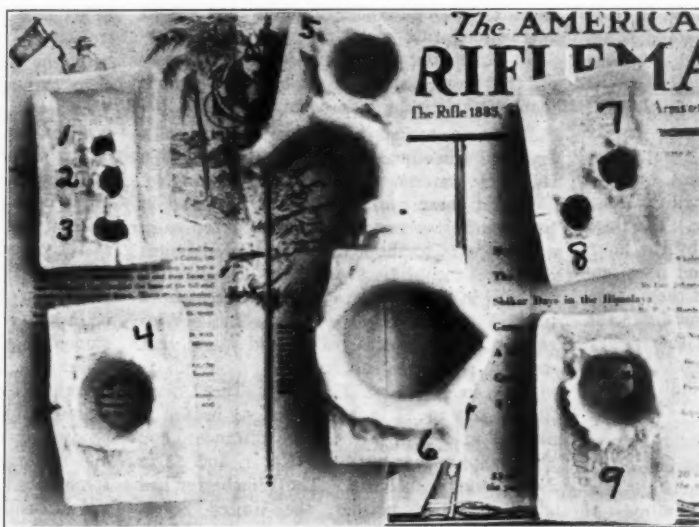
The fifth deer fell to the 303 rifle with Remington soft point ammunition. The deer was a five point buck and was standing at 45 yards. At the first shot he drew himself up as if he had eaten green apples and had the cramps. He started to walk off and went down at 65 yards with a hole in his heart. He stood still for 15 seconds before falling.

The sixth deer went to a Krag carbine with Newton bullets, and Western hollow points mixed as the first shot through the lungs at 25 yards did not do the work. This three point buck took four body shots and a 700 yard foot race to convince it that the country went Republican.

The seventh deer (two point) was hit with a Krag carbine at 220 yards standing broadside. The deer gave a sharp kick and left in a hurry for the big timber. The froth on the bloody grass told that it was just a case of trailing and he was found dead 350 yards from where he was shot. The bullet was a service bullet filed off.

The eighth deer was already shot through the shoulders and lost by some other hunter. The Krag rifle with service bullet filed off, and a sixteenth-inch hole drilled in it, broke both shoulders at 95 yards and the battle ended. He was a 210-pound four point black tail buck. (Size does not agree with reports of fishermen-hunters.)

The fortunes of war took the 351 Winchester through the (Concluded on page 17)



Shots Nos. 1, 3, 4, and 6 made with the Springfield and the balance with the Krag. No. 1—180 gr. Western Hollow Point. No. 2—220 gr. Service Bullets. No. 3—150 gr. Service Bullet, point filed and drilled. No. 4 and 5—220 gr. Western Soft Point. No. 6—170 gr. Western Soft Point. No. 7—172 gr. Newton Soft Point. No. 8—220 gr. Metal Jacket. No. 9—Government 170 gr. Boat Tail with point filed and drilled.

On a few hunts in the past years I have made observations of the ability of certain game to stand punishment. My notes were made at the time and are not guess work. My distances were measured by stepping off the distance, and are practically correct. There were several persons in the party and the guns used were the Krag carbine, Krag rifle, .30-06 Springfield, 303 Savage and 351 Winchester automatic. There were three separate hunts.

The first deer was a four point buck (four points on each horn mind you) and was shot through the heart with the 303 at 65 yards, he ran 40 yards when a second shot from the same gun broke his shoulder and he resigned.

The second deer was shot twice through the lungs with a .22 Colt auto pistol at 40 yards running sideways. Both bullets stopped just under the skin on the opposite side and fell out in skinning him. He was a five point white tail (the only white tail killed by us). He went down the second shot, but was up in

The Game Getter

By G. Walter Booth

ONCE upon a time there was a man who wore perfume—and a black, curly mustache, the former to prove his gentility, and the latter to prove his virility. But he liked to hunt, and he used a Marble's "Game Getter."

Again there was a man who ran a factory, drove his own car when he could afford a chauffeur; and refused to join clubs because they interfered with the constant attention he gave to his business. But he liked to hunt, and he used a "Game Getter."

Then there was another man who practiced medicine, and worked mighty hard, and studied a lot—sometimes about guns—and he took *THE AMERICAN RIFLEMAN* and read it from end to end, and, moreover, understood it all. And he liked to hunt and he used a "Game Getter."

Now of these three men, the first didn't know a darned thing about a gun—hardly knew the safety lock from the front sight. The second knew something of guns, but was interested in results only, not in ballistics, nor in the scientific discussion of game. The third man read ballistics and gun lore by the hour, and knew game and its habits and its scientific names by heart. All three of them, however got out into God's great big outdoors and wanted results when they pulled the trigger. Yet, though they all used different kinds of rifles, they all three also used "Game Getters."

Therein is food for thought.

WHEN a gun appeals to a large number of sportsmen of various degrees of intelligence, some of them even Democrats, and has a sale that runs into the hundreds of thousands, there must be something about that gun to commend it to almost anyone.

From the looks of the thing, it seems to be "neither fish, flesh, nor fowl." The rifle barrel, as compared to a Match rifle, would seem too short to be accurate; and the shotgun barrel would seem to be too small for use on anything larger than a strong, husky cock sparrow. However, "the proof of the pudding is in the eating," so when we got our "Game Getter," we took a little trip into the country to try it out. We took along some old targets with two-inch bull's-eye, and also some large sheets of wrapping paper with thirty-inch circles drawn in the middle.

On the way, just by way of experiment and diversion, we killed three sparrows and a red squirrel, using the .410 shotgun barrel on the two sparrows, and the .22 caliber rifle barrel on the one sparrow and the pesky little red squirrel. In each case, it took only one shot, and that shot did the work with neatness and dispatch. We used the little skeleton stock that comes on the "Game Getter," and shot it as a shoulder gun. An expert shot with a pistol could probably have done as well without the stock.

Then we got onto the range and shot the rifle barrel at the target. We made our targets

with a table rest and a sand bag, and we managed to keep all our shots in a two-inch black bull at twenty-five yards.

Major Townsend Whelen, who is a far better shot than most fellows, is authority for the statement that the rifle barrel, fifteen inches long, will make one-inch groups at twenty-five yards. All of this goes to prove that the rifle will shoot considerably closer than the average man can hold, especially in the offhand position.

Our shooting was done with the Winchester hollow-point bullet. Probably the regular .22-caliber long rifle bullet is a bit more accurate. We shot a few .22 shorts at twenty-five yards, and they seemed to make about as good groups as the long rifle cartridges with the hollow-point bullet, but they group a little bit lower on the target, although probably not more than one-half inch at the very outside.

Next, we tacked our paper targets on a frame of three-quarter-inch pine boards. We found by counting the shot, which were No. 7½, that there were 114 shot to the load in the Winchester cartridge with a paper case, and 131 shot to the load in the United States cartridge with brass case, and 105 shot to the load in the Western cartridge with a paper case. We made three patterns with the Winchester paper case cartridge, and found that we were getting 48 shot in No. 1, 65 in No. 2, and 59 in No. 3 at 25 yards. The United States gave us 57 in No. 1, and 44 in No. 2, and 43 in No. 3 at the same distance; and the Western gave us 49 in No. 1, and 53 in No. 2, and 54 in No. 3. The Winchester had nine grains of powder, the United States eleven, and the Western nine and one-half.

From what we have seen and heard of the popularity of the three cartridges, we are inclined to the belief that the United States cartridge is the most popular. Somehow or other, the brass shell seems to look more businesslike than the others, and then, too, of course, the brass shell is the one most frequently reloaded. But it is our judgment that the brass shell is the poorest of the lot, although the powder seemed to be the same in all three, and we judge it is.

As near as we can tell, the shotgun barrel is bored a true cylinder. This being the case, it is surprising that good patterns can be made. It is our opinion, however, that the reason why the brass shell does not give as good patterns as the other two is due to the pronounced crimp on the shell. The end of the shell is crimped over nearly a sixteenth of an inch, and this being the case, we are bound to get more strip loss in our shot column, by reason of the fact that the shot must first flatten out this crimp, and, of course, many of the shot around the edge of the load are deformed in flattening out the shell. Undoubtedly, we get more deformation in flattening out this heavy crimp on a metallic cartridge than we would in flattening out the

trifling crimp on a paper cartridge. However, there may be other causes that intervene, such as wadding, hardness of shot, etc., that have a tendency to give patchy patterns. The only complaint we ever heard against the little "Game Getter" is that occasionally it gives patchy patterns. Of course, the .410-gauge cartridge is completely new, especially when compared to the standard twelve-gauge cartridge, and much less experimental work has been done on it. Undoubtedly, the loading companies will produce more perfect cartridges in the future.

As to penetration, we took an old Sears-Roebuck catalog and fired a .22 hollow-point bullet into it, and found that we got a penetration of 1½ inches. The .410-gauge shell with the single ball gave us a penetration clear through the thing. We then tried one Winchester and one Western shot cartridge, and got a penetration of about one-half inch on each. All of which goes to show that both cartridges have a surprising killing power.

We have a friend who insists that he killed a black duck with the .410 shotgun cartridge at forty yards. We have seen spruce grouse killed with the shotgun cartridge up to thirty yards, and the killing was as clean as could be asked for. Mr. Grouse dropped like a stone, and that was the end of him. We have also killed spruce grouse with the .22 caliber barrel, and we found that it, too, killed neatly, although it is a fact that occasionally a spruce grouse would not drop when hit with the .22, and although he would eventually die, we sometimes had to follow him quite a distance, and occasionally we lost him entirely. This is not due to any defect in the gun or the cartridge, but to the fact that we did not place our shots well enough.

The Marble gun is just what it claims to be, and nothing more. It is a "Game Getter." It is a gun to supplement other arms. It is a gun to fill the pot when you are on a hunting or fishing trip. It would be foolish to claim that it is a super-accurate target gun, or the kind of a gun that will ever amount to anything in shooting clay birds, or for general upland shooting. However, as a game getter, it is hard to beat. Small game, in the country where one is going to hunt big game, is invariably tame. We get close to our quarry, and the main object is to have a gun that is light and handy and can be carried in a holster, but yet have a gun that can be shot by the average hunter who is not a pistol expert, and kill game with reasonable certainty and accuracy. Anyone can shoot the gun with sufficient accuracy to keep the pot full of grouse, rabbits and squirrels, and all this can be done without having to carry two heavy guns into the woods.

For wing shooting, of course, the little "Game Getter" leaves a lot to be desired. It cannot possibly fit up like a well-made shotgun; but wing shots (*Concluded on page 17*)

Telescope Mount Troubles

By J. W. Fecker

IN the shooting game much progress has been made in the last twenty years in guns, ammunition and scopes, but in the mounts for target shooting we have made no progress worthy of any special notice. The accuracy of match rifles has greatly increased, unheard of accuracy has been obtained in ammunition, and we have scopes which are shock-proof and with power and illumination enough to show .22 caliber bullet holes in the target up to 200 yards, but the accuracy of the mounts remains the same.

When considering micrometer mounts, we know that micro means small and meter comes from measure, implying the ability to measure minute quantities accurately. A micrometer such as a machinist or tool maker uses is an instrument of extreme precision. The anvil is accurately flat and square to the axis of the screw. The screw is very accurately cut or milled, not chased with a pipe die, and the end is very carefully ground and lapped exactly square to the axis. The nut is carefully threaded, split and provided with a take up to eliminate back lash and compensate for wear. With such a construction the average mechanic can readily set to any desired size to one-fourth of one thousandth of an inch, and a highly skilled workman can measure to one-tenth of one thousandth.

In the use of a telescope mount we have similar conditions in that we desire accurately and with certainty to move the line of sight to one thousandth of an inch or closer. With the standard mount separation of 7.2 inches, one thousandth of an inch of motion of the telescope will move the point of impact one-half inch at 100 yards, one inch at 200 yards, or five inches at 1,000 yards. Now how many times have you shot at 100 yards and wanted to move your group over one-half inch? Did you move your mount and get exactly one-half inch? No, you probably held off because you did not dare touch the mount. If you can't move your group one-half inch at one hundred yards with certainty, that is, move one end of your scope one thousandth inch in its mount, you have not a micrometer mount. Something is wrong somewhere, but what is it and where?

When we consider the mount from the standpoint of a precision instrument, there are three principal causes of error in the screws themselves. In the first places, the threads are not accurate enough for the purpose for which the screws are used. The threads are chased with a die, the screws are dumped into barrels and are shaken around and the threads are soon battered. Added to this the screws are invariably taper, and the two screws of the same mount do not bear equally; as the clamp screw is tightened up one will be tight and the other loose. The remedy for this is to lap in both screws carefully with very fine emery and oil until both screws fit equally

tight throughout their entire travel. Tedious, yes, but worth it after you are through. The ends of the screws are rarely square to the axis of the screw. Some still have the little teet left in the center from the cutting off operation, and many have ends which are convex. In some the ends have been smoothed off by holding them on a grinding wheel, probably making the worse by grinding the end at an angle. Even if a screw has a good, flat square end it will not last, but soon has grooves worn in it from the telescope tube, or the edge becomes nicked. Remember, a nick just one thousandth of an inch deep will throw your shot off five inches at 1,000 yards. Take the screws out of your mounts and look at the ends. They will be worn full of grooves and have nicks in them, no doubt. Many of them are fully five thousandths of an inch deep. When you turn such a screw your tube rides on a high spot then falls into a hollow, and you are clear off the target. How can you expect to move the tube accurately when the errors in the ends of the "micrometer" screws are from ten to twenty times the errors in the rest of the outfit? The solution of this problem is to harden the micrometer screws and grind the ends square to the axis and flat.

The ends of the micrometer screws being of circular outline and bearing against a cylindrical tube, there is just one position in which a straight line movement can be obtained, and that is when the tube lies so as to be in contact with the screw and in a line. In this position the end of the screw bears on the tube along a diameter of the screw, and the screw is exactly at right angles to the tube, and screw and tube are on center. If, now, the screw is moved out or in, the tube no longer bears clear across the face of the screw but touches on one edge only, and as the tube moves across the screw, its path is determined by the shape of the edge of the screw, which is circular. For this reason, if the scope is clear over against one side of the mount, the motion is not in a straight line, but in an arc of a circle. Try clamping your rifle in a vise and moving the scope all the way across the mount by either windage or elevation screw. You will find that the crosswires will not move along a straight line but in an arc, and the deviation from the straight line increases, as you get farther off center. This is one of the reasons for getting a few points of windage thrown in for good measure when you move the elevation screw. There are several methods of overcoming this. One is to place a square sleeve on the tube, and make the ends of the screws spherical. Another is to place an angle iron on the tube either with keys or slots in which the ends of the screws travel. A third method is to place non-rotating discs on the ends of the screws, these discs having a beveled straight edge against which the scope

bears. These devices should, of course, all be hardened.

Another fruitful source of trouble is in the springs or plungers which hold the scopes against the screws. If the plunger is not perfectly smooth and well polished, it will stick and refuse to slide, and the result is that the scope does not move. In order to offset this heavier and stiffer springs have been used. This, in my opinion, is the wrong thing to do as the stiffer springs so greatly increase the friction of the scope against the screws, that the scope will not move when very small adjustments are made. The proper thing here is to provide much smoother sliding surfaces, plungers or spring ends to be hardened and highly polished so as to reduce friction to the minimum. Also, oil the tube where it slides in the mounts.

Too little attention is paid to the condition of the blocks on the barrel. So many of them have sharp edges, more or less nicked up. They are soft and a bump raises a slight burr. When you put the scope on and start to shoot the burr pounds down and your zero has changed. Perhaps you may say this is exaggerated, but do not lose sight of the fact that a nick of one thousandth of an inch in your bases will throw off your shot just five inches at 1,000 yards. Play safe by taking your blocks off, smoothing them up all over and having a good mechanic case harden them good and deep. A part which is as important as a mount base and is as exposed, has no business being soft.

When you consider the requirements of a true micrometer mount, and then analyze the construction of present day mounts, do you wonder that you cannot do your best with such construction.

In the development of the match rifle, price has been no object, accuracy has been the sole aim, and the same in the special actions and stocks.

In the mount situation, the need for real accuracy has apparently been overlooked, and the mounts have been designed to sell at a given price. Just for comparison, consider the price of iron sights, the Lyman 48 rear sight sells for about \$12.50, and the amount of work required to make it is very nearly the same as the work required to produce a rear micrometer mount. The Lyman aperture front sight, selling around \$4.50, compares well with a front mount in the amount of work. Another case, a good Starrett or Brown C. Sharpe micrometer, capable of measuring to 1-10,000 inch, sells for \$10 to \$12. Yet the shooter expects the same or even greater accuracy from a set of micrometer mounts which cost only one-third to one-half the price of similar articles. Take the Winchester No. 2 mounts, which uniformly have the best workmanship and retail for \$6.10 complete, and from this there must be (Concluded on page 20)



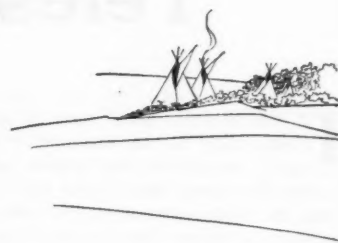
The American Rifleman

EDITORS

BRIG. GEN. FRED H. PHILLIPS, JR.
KENDRICK SCOFIELD — T. G. SAMWORTH
C. B. LISTER

Adv. Mgr. J. R. MATTERN — Art Ed. C. J. SMITH

Published semi-monthly on the first and fifteenth days at
1108 Woodward Bldg., Washington, D. C.,
By The National Rifle Association



• BLACK HAWK WAR, 1832. •

It was in the year of 1832 that the league of Sacs and Foxes decided to try issues with the whites. They found an apt leader in Black Hawk, a bitter and implacable foe of the settlers. Colonel Henry Dodge, the first territorial governor of Wisconsin, sent out a hasty call for volunteers, while General Atkinson, in command of such troops as were available took the field. On the bluff of the Wisconsin River they met and defeated the Indians, the survivors taking up a position at the mouth of the Bad Axe River, where they were forced to surrender.

THE weakest link in the fight against ill-advised firearms regulatory legislation has been the fact that most of the reams of editorial matter which have been written showing the ineffectiveness of the usual type of anti-firearms bill have been printed in *THE AMERICAN RIFLEMAN* or sportsmen's magazines.

Home Papers Please Copy

It has been pretty much the same proposition as preaching Temperance in the official publications of the W. C. T. U., or Masonry in one of the many fraternal publications of that body. However, these editorials have undoubtedly improved the morale of those honest citizens who were attempting as best they could to combat such unwise legislation as appeared in their community.

If it had been possible to have the editorials which have appeared in *THE AMERICAN RIFLEMAN* from time to time on this subject printed by the newspapers throughout the country, there would in all probability have been a decided reaction against bills of the Sullivan type. Editorials, however, from a paper published by an Association whose primary object is to promote rifle and pistol shooting might be viewed askance by home-town editors.

The following editorial from the Worcester, Massachusetts *Evening Gazette* of March 30th would indicate that at last the shooter's standpoint is beginning to leak out and become realized by editors of other than shooters' publications. This editorial will not only be encouraging to the readers of *THE AMERICAN RIFLEMAN*, but it will give them some sound evidence which they can lay before their local editors.

DISTRIBUTION OF FIREARMS

*Should Householders Be Permitted
To Arm for Their Own Protection?*

Suppose—just suppose—that instead of forbidding the householder to possess arms, a law were passed making it mandatory for every head of a family not only to own a good revolver or pistol, but to become proficient in its use.

Wouldn't the knowledge that every house in Worcester, for instance, contained pistols and those who knew how to use them deter would-be robbers from attacking those houses?

Suppose every automobilist carried a gun, and also knew how to use it? Wouldn't this deter bandits and thugs?

The Sullivan law in New York has succeeded admirably in keeping law-abiding citizens from carrying or keeping firearms, in order to protect themselves. That it has not kept firearms out of the possession of thugs and gunmen is so true as to need no proving. The Sullivan law has acted just as the prohibition law has acted—it has kept people who respected the law from violating it; it has not prevented those who wanted to break it from doing so.

Any law, State or national, making it an offense to carry or to possess firearms, works to the benefit of the robber, the thug, the gangster. It makes assurance doubly sure, for the gunman. A law that makes it a crime for the citizen to possess the means of defending his home against the always well-armed intruding criminal, helps, not hinders, the gunman.

The reason that nobody ever walks up to Jack Dempsey and offers to punch his face in, the reason that nobody ever picks a fight with Benny Leonard, is the same reason that would keep gunmen from trying their luck with well-armed householders who had spent some time on the target range.

The use of firearms is deplorable. But if the thugs go armed, and are extremely willing to shoot, isn't it being pretty nice and considerate to them to assure them that they need feel no apprehension that those they attack are in a position to shoot back?

You can't keep firearms away from the crook. And you can't keep a policeman in front of every house, even on every street.

Nine out of every ten gunmen are pasty-faced little weaklings, cowards. Nine out of every ten gunmen would quit gunning if they knew their prospective victims could shoot, and would shoot, and would shoot straight.

It may be a rough and ready argument. It may also be noted that these are somewhat—as far as crime is concerned—rough and ready times.

Here is an editorial written by a newspaper man with no strings to him, which you can lay before your own editor on a man-to-man, unprejudiced basis.

Entered as second-class matter, April 1, 1908, at the postoffice at Washington, D. C., under Act of Congress March 3, 1879. Obtainable by subscription, \$3.00 per year. \$2.00 to individuals or members of clubs affiliated with the N. R. A. Canadian subscription, \$3.50. Foreign, \$4.25. The articles published in *THE AMERICAN RIFLEMAN* are not copyrighted and may be reprinted without further authorization.

Shots at Soap

(Continued from page 13)

campaigns and into Mexico, but it did not have a chance. The ability of the gun is still a mystery to me.

The ninth deer was standing at 80 yards and took the first shot from a Krag rifle. He did not fall, but started to run, two were shooting at him and the second hit at 160 yards knocked him down and he was up and going instantly. The third shot was a straight away and hit him in the tail and came out the neck. This was the only shot that hit any of the deer endways or in the head, as we wanted the heads for mounting. It was 310 steps to where the deer lay. One shot was through his lungs and one through his heart. The bullets in the two Krags were Western hollow point. This two point buck ran 300 yards with one of the first two hits either in the heart or the lungs.

It may seem strange to some that so many deer were hit in the heart, but when one realizes that the heart is as large as a quart can, and that all the shots were sideways at close range by expert shots, it is not wonderful at all. The wonder of it all is that these deer which had about a half inch of fat on their bellies and in perfect condition, could go so far with bullets in their hearts. When I say that they had bullets in their hearts I really mean that their hearts were blown up, for they were always torn wide open, or broken in two.

Several deer were shot at standing or running at 50 to 200 yards that were never seen again, and left no evidences of being hit. A deer that it fatally shot and can go out of sight in timber and underbrush is very hard to find, and that many are lost in this manner.

The bear acted about like the deer. One bear fell to the .30-06 170 grain boat tail filed off and hole drilled in. The bullet did not do so much, but it was where he was hit that stopped the show in the first act, scene 1. This bullet cast anchor on the back bone at the shoulders.

The second bear showed that she had no respect for the gun that Brother Thomas likes so well. The bullets were the Western Hollow Point in a Krag carbine at 200 to about 75 yards. There were five hits in six shots which went through her sideways, quartering, and endways, but always missing that little thread that means so much located in the back bone. The lucky one with the gun said that it was very distressing to feel satisfied that he was shooting true, and yet see so little signs that he was hitting. The only sign he got was when she snapped at her side, and the high sign. And all this when there was a cub that needed attending to—but did not get it. She ran 125 yards after the last shot before falling.

A coyote was introduced to the 351 Winchester with soft nose Winchester ammunition. At 92 yards the bullet entered about the middle of his ribs, and came out on the other side. A large part of what was in him came out with it. Why is it that the coyote seems to go to pieces so often when he is hit? This bullet could not be nearly as severe as the Krags were dishing up to the deer and bear,

and yet the holes where the bullets came out of the deer were seldom large enough to put your thumb in,—or mine either, and I have a small one.

Such is the evidence of three hunts in two states within twenty months. Where did I go? Listen, that is another story, as well as the story of the camp and the game. This is a bullet and soap story.

Is there any wonder that I took some shots at soap this winter, while time was hanging heavily on my hands, like the snow on the low spreading fingers of the spruce trees? I inclose a picture of the results, for publication. The pictures of the flock of deer hanging in trees, and bear, are inclosed only to show the Hon. Editor that I know what I am talking about, and they will be sold later with the story *supra*. Likewise the deer that surrendered to the Parker 12 gauge with nine 00 bucks and could carry the load but 65 yards is not a part hereof.

The shooting done on the bars of laundry soap was done with sand bag rest at twelve feet by two of us, with two guns. Nos. 1, 3, 4, and 6 were made with the Springfield, and the balance with the Krag. The picture shows the side the bullets came out.

No. 1 was 180 grain Western Hollow Point, gilding metal and made a hole slightly over five eighths inch on both sides.

No. 2 is the 220 grain metal jacket service bullet. It made a hole the size of the bullet where it went in and five eighths inch where it came out.

No. 3 is the 150 grain service bullet filed off and a small hole drilled in end. The bullet entered with a half inch hole and came out an oblong hole one half by three-fourths inch.

No. 4 is the 220 grain lubaloy Western soft point bullet. This bullet has about one sixteenth of an inch of lead showing on the rounded point. It entered the soap with 1¼ inch hole and came out with 1¾ inch funnel.

No. 5 is the same bullet as No. 4, half inch hole at entrance and 1½ inch where it came out. Isn't it a bird?

The other shot on this bar tore the end of the bar off and was made with the 170 grain Western soft point with lots of the lead showing (about like the 30-30).

No. 6 was made with the same bullet as above—the 170 grain Western soft point. The hole where it went in is 2x2½ inches and where it came out is 2½x3 inches. What would this do to a coyote?

No. 7 is the 172 grain Newton soft point (old style and copper jacket). Entrance is half inch and exit three fourth inch. This bullet had a good reputation in its day.

No. 8 is the 220 grain metal jacket, and entered with a hole the size of the bullet and came out an oblong ½x¾ inch. Bullet was probably wobbling being so close to the gun.

No. 9 is the Government 170 grain boat tail with point filed off and hole one sixteenth inch diameter drilled in about one sixteenth inch. Hole at entrance is one inch and where it came out is 1½ inch.

Now then, this soap was hard and dry, and very brittle. I used soap for the tests for it is made of flesh. Why did this soap run like

the deer shot through the heart? Why did the bullets apparently expand before they hit the soap? I do not know, and care very little, the result is what the hunter looks for on the expanding bullet, not the ballistics. I think a beginner can look over the picture and like the nigger in the restaurant. Look over into the other fellows plate and say, "Give me some of thatair."

The Game Getter

(Concluded from page 14)

shots are not often necessary, and even at this game, the little gun gives a good account of itself when carefully handled. The way it will kill a duck as he gets off the water is a delight to behold.

When we stop to think that deer have been killed with the .22 long rifle cartridge, and that our ancestors killed a lot of deer with an old .44 caliber smooth-bore gun, we cannot doubt for a minute that the "Game Getter" would kill a deer, either with the .22 caliber long rifle cartridge, or with the ball cartridge, which can be shot through the .410 gauge barrel. This heavy ball has a good deal of shocking power, and at short range, it has penetration enough to reach the vitals of a deer with absolute certainty.

There is no all-round gun; but this little gun has a wide variety of uses, and the best thing about it is its lightness, and compactness, and availability to supplement a high-powered sporting rifle in the game fields.

Another considerable factor in its excellence is the ease with which it is kept clean. We all know that some guns shoot cleaner than others. There is something about the steel, or something in the bore of the gun that makes it easy to keep clean in some cases and hard in others. We, ourselves, have two Springfield Sporters, one built in 1923 and the other one in 1917. The new gun is twice as easy to keep clean as the old one, and yet the inside of the barrels seem the same. The "Game Getter" seems to be built of the kind of steel that is easy to clean, that resists rust, and is so smoothly finished that it does not get leaded or metal-fouled. This is a mighty big factor when you are deep in the woods and cleaning a gun is a darn nuisance.

Another thing about the "Game Getter" that commends itself to one is the strength of the working parts. They are all big and strong. Particularly is this true of the extractor, which is both big and simple in its operation. The entire gun is so simply and strongly built that one need have little fear that it will get out of order on a trip far from repair shops.

It is surprising how good the sights are. The front sight, with its gold bead and heavy construction could hardly be better; and the rear sight approaches perfection. It is a bit on the order of the old reliable rocky mountain or buckhorn sight, made very coarse for taking quick aim, and this is just right for using the shot gun barrel. A small peep sight folds up into the coarse aperture from the rear, and a similar small notched open sight can be folded up from the front, giving about any kind of a sighting combination desired.

Frankford über Alles

(Continued from Page 4)

checked, and all previous figures were re-checked. Observers milled about in front of the tabulations as they do at Perry when the National Team Match returns come in by relays. When the last average was written, it showed that on the basis of 47 targets Frankford had won by .14-inch on the mean radius. Colonel Shaw announced the decision as Chairman of the Board.

Frankford Arsenal's second lot of Palma ammunition in 31 targets had a mean radius of less than five inches, and was therefore far superior to any previous winner of Palma ammunition, as the best previous record was last year's Remington-Palma, which had a mean radius of 5.50 inches.

To complete Frankford's victory the Board announced what had been obvious for some time, that in the International race Frankford was first with its Lot No. 2, and Remington second with its Lot No. 4. Third place was taken by Western Lot No. 1.

Thus ended the hardest fought contest that ever has occurred between rival precision cartridges.

WITH the high degree of precision now attained in match ammunition the margin of superiority shown by winners amounts to only one or two tenths of an inch on the mean radius. A more sensitive index, showing wider margins would no doubt be desirable, but none has yet been devised more satisfactory than the Ordnance system of measurements and averages.

While the winning loads will consistently keep the majority of all shots of all groups within the vertical dimension of the twenty inch V ring at 1,000 yards, or the four inch ten ring at 300 meters, there will occasionally be a shot outside these limits. It may be too much to expect that any loads will ever show the marvelous regularity required to give groups never exceeding these rings in height. Yet so many groups do so that there is room for hope that under perfect weather conditions such results will eventually be obtained.

Frankford did not win by virtue of powder, for the winning Palma load was du Pont 1147, while the International winner was loaded with Hercules Hivel. The runner-up reversed this condition, using Hivel in his long range cartridge, and No. 1147 at 300 meters.

It would seem more probable that this was a victory of bullets, for the nine degree boat-tail projectile of the Arsenal won at each range and with each powder, over the slightly heavier flat base bullet used by Remington.

The short range load of the Arsenal won by a more decisive margin in the averaged

figures than was the case in the contest at 1,000 yards. International team men will have a load of wonderful grouping quality, little affected by wind and with a very light recoil. The latter factor is one of no little moment in their long grueling matches.

So far as the size of the 1,000 yard groups is concerned, as reflected in the average of 47 targets, there is practically no difference between the Arsenal's 1,000 yard cartridge and the Remington Palma which it defeated by fourteen hundredths of an inch on the average mean radius. That is a three per cent difference, and a difference so small might conceivably be reversed in another trial.

Probably the fairest comparison of the merits of these two cartridges is seen in the 16 additional targets fired by the leading com-

aid in winning matches or series of matches. The propellant is a cool burning progressive powder of the modern type, which keeps the barrel erosion at the minimum and lends itself to obtaining a desirably high velocity with safe chamber pressures. The 9° boat tail bullet of 172 grains is a projectile not only of great accuracy but of superior wind-bucking quality and greatly increased ranging power. At 1,500 yards its superiority would no doubt be much more evident than at ordinary ranges. Its reduced weight as compared with other wind-buckers permits an increase of initial velocity which in turn cuts down the wind allowances used in the past.

Compared with its rival, Remington-Palma, the Frankford load appears to have the advantages of 173 feet greater velocity at 75 feet from the muzzle. After the firing Charlie Hogue of Frankford stated that their cartridge took seven minutes less elevation and something like ten feet less windage at 1,000 yards, as shown by the readjustments necessary on the machine rests.

The gilding metal jacket decreases both the chances of changed point of impact from metal fouling, and also the labor of keeping match barrels in condition.

If this cartridge has a disadvantage it would appear to lie in the chamber pressures used. Although the Arsenal figures show less pressure than that recorded by the Remington Company, the pressures taken by the Board show about 6,000 pounds more for the new cartridge than for Remington-Palma. Pressure records are notoriously unsatisfactory for comparison on account of the frequent lack of comparable basis in the coppers and in using different pressure guns. The pressure of 52,385 pounds recorded by the Board is not in the least dangerous with modern rifles, but if it is actually 6,000 pounds greater than the Remington cartridge the difference is certainly not an advantage.

It may mean a somewhat heavier recoil. It may mean that even with a nitro-cellulose powder there will be undesirable barrel erosion, especially in combination with the boat-tail bullet. It may mean that in the slender barrels of the military rifles, or even the heavier free rifles, there will be less accuracy than the test in thick Mann barrels has led us to expect. These, however, are merely mentioned as possibilities. Frankford experts no doubt know very closely the merits of this load from trial performance in the Springfield rifle. Actual match firing during this summer will reveal any possible objectionable features.

So far as may appear from the test a step in advance has been taken in long range match ammunition, a step so marked that the new cartridge is practically a new type.

THE AMERICAN RIFLEMAN congratulates

TABLE 2.
Palma Ammunition: Rank of Competitors and Average Group Measurements
Fired at 1,000 yards in groups of ten shots each.

Rank	Competitor	Lot No.	Av. Group Measurements In Inches				No. of Groups Averaged
			E.V.	E.H.	Extreme Spread	M.R.	
1.	Frankford	3	11.54	11.43	14.68	4.46	26†
2.	Remington	2	10.30	12.73	14.14	4.56	26
3.	Frankford	4	11.17	14.22	15.91	4.99	26
4.	Remington	1	14.35	13.43	17.65	5.39	26
5.	Western	3	14.89	14.55	17.95	5.76	26
6.	Western	4	19.75	15.74	22.55	6.74	26
7.	Winchester	101	17.09	19.43	23.41	7.39	26
1.	Remington	2	10.80	12.87	14.62	4.66	31‡
2.	Frankford	3	11.38	12.17	15.02	4.66	31
3.	Frankford	4	11.33	14.12	15.89	4.93	31
1.	Frankford	3	11.32	10.28	13.45	3.97	16§
2.	Remington	2	11.60	10.73	13.95	4.41	16
1.	Frankford	3	11.36	11.53	14.48	4.43	47*
2.	Remington	2	11.07	12.14	14.38	4.57	47

Note.—Basis of award is the mean radius.

† Regular orders, eliminating those in which any competitor had incomplete targets.

‡ Regular orders, eliminating only those in which either Frankford or Remington had incomplete targets.

§ Additional orders, required by the Board to break the tie.

* Total of (†) and (§)

TABLE 3.
International Match Ammunition: Rank of Competitors and Average Group Measurements Based on 24 Ten Shot Groups, Fired at 300 Meters

Rank	Competitor	Lot No.	Average Group Measurements In Inches		Figure of Merit
			Vertical	Horizontal	
1.	Frankford	2	1.88	2.33	2.11
2.	Remington	4	2.25	2.51	2.36
3.	Western	1	2.19	2.66	2.43
4.	Remington	3	2.31	2.69	2.50
5.	Frankford	1	2.27	2.78	2.53
6.	Western	2	2.54	2.76	2.65
7.	Winchester	302	3.04	3.20	3.12
8.	Winchester	301	3.91	3.78	3.85

Note.—Basis of award is the figure of merit at this range because mean radii are too small to permit satisfactory measurement.

petitors by direction of the Board, in order to break the tie. The average mean radius of the 16 targets fired by Frankford was 3.97; while the average for the sixteen targets fired by Remington was 4.408. These targets were all fired exactly at the same time and observing all the other conditions of exact comparability.

Ordnance experts state, no doubt with reason, that if the Palma test had been fired under the ideal conditions which sometimes exist, such as a foggy morning with absolutely no wind, the average mean radius of Frankford's winning lot on the entire series of targets might have been under four inches.

MANY riflemen will note advantages in the Frankford Palma load which do not appear in the averages, but may nevertheless

Frankford Arsenal on the patient research which resulted in a splendid performance at Aberdeen. The defeated competitors we congratulate as well, for they in fact have given an admirable exhibition of sportsmanship which it is to be hoped will continue and be shared by all of the great cartridge makers.

Western came to the short range with ammunition loaded with 220 grain, soft point hunting bullets. We have thought of hunting loads in terms of six and eight inch groups at 200 yards. Yet Western acquitted herself with credit in competition with the best match ammunition in the world. Can more be said for cartridges designed primarily for smashing power on big game? Their International load was beaten by Remington, but by the narrow margin of .08 inch on the figure of merit. Another test might reverse this difference. Both cartridges were good enough to equip world champions.

Winchester entered ammunition of an advanced type, boat-tail, gilding metal bullets, with high velocity for long range. Although outranked in this unparalleled exhibition of accuracy, their work was a real achievement considering their ten years of non-participation in these tests.

Super-accurate rifle barrels will not make poor ammunition shoot good targets. On the other hand, the finest ammunition in the world will show up poorly when fired from inaccurate or poorly made barrels. It should, therefore, be remembered when admiring the remarkable groups made in the International and Palma Match tests that all of these targets were made in standard Mann rest barrels 24 inches in length made by Springfield Armory. Usually, in tests of this nature, all of the credit goes to the ammunition. Without detracting in the least from the product of Frankford Arsenal, it should be remembered that this great record would not have been possible without the exceedingly high type of test barrels supplied by Springfield.

Tribute should also be paid to the performance of the personnel of Aberdeen Proving Ground in handling a test such as the International and Palma Match tests. The speed and accuracy with which the targets are obtained and measured are little short of marvelous. In former times, these tests, on the ordinary type of target range, required several days. With the range and range crew available at Aberdeen, it would have been possible to fire both tests in one day, providing the Board had not laid down the requirement that firing should be on two separate days, in order to obtain a comparison under different weather conditions.

One other element was there, invisible but none the less potent. That was the influence of the great body of civilian riflemen, ever impatient of mediocre equipment, ever demanding further improvements, and quick to recognize merit. It is their influence that furnishes stimulus for the generous rivalry between the cartridge companies and the Arsenal, which in turn has brought about the present high grade of ammunition. The Arsenal has now proved that no previous standard is too high to be excelled. Which of the rivals will take the next step toward perfection?

Experiences With, and Without Binoculars

By Byron E. Cottrell

IT is seldom that a hunter, whether experienced or a tenderfoot, starts out after mountain sheep or goats without a good set of binoculars. Experience has proven that they are almost as necessary as a rifle,—and used a great deal more. But when we come to the timbered country it is seldom that we see a hunter carrying glasses of any kind. This would only be natural, but just the same I believe it is a mistake. Generally the hunter who has tried using glasses in the timber is the fellow who has had other use for them, possibly to hunt sheep with, and then carries them with him some time deer hunting. Again this is a mistake! Glasses that are best adapted to open country are not at all suitable for use in a timber of brush country. This hunter form the opinion that glasses are of no use in timber or brush, and this is the generally accepted opinion.

The glasses best adapted to open country are those of not less than 6X, and better yet 7X or 8X. They should have a large exit-pupil so they can be used in dull lights, and this means large heavy lenses, which in turn means that the complete set of binoculars must be rather bulky and weigh from 25 to 36 ounces. In open country a person can carry such glasses with very little trouble, but in the woods they are a positive nuisance, besides their optical qualities are not the best for use in wooded country. A person carrying such glasses soon comes to the conclusion that they are not worth bothering with.

The binocular best suited for use in the woods should be first of all small and light. Of course they should be a prism glass, none others are worth any consideration at all by a hunter. They should take in a very wide field of view. Now the higher the power the narrower the field, so they must be of rather low power, 3½X or 4X is about right. As they will be used at a comparatively short range great power is not needed. Such glasses as these have not been long on the market, in fact only for the last year or two. I will tell you more about these later on.

Here is a little incident that happened to a fellow hunter who hunted in the same country that I did a few years ago. He was hunting along a ridge that was dotted here and there with small bunches of scrub oak. He had hunted all day and so far had seen nothing. Late in the afternoon he was just starting off a point when he saw a deer not over forty yards away standing with its head and shoulders behind a bunch of scrub oak. The law in this State said that only bucks with horns four inches long were legal. The hunter could see no horns, and in moving around to get a better view he "jumped" the deer. As it sprang in the air it showed a fine set of antlers, and disappeared over the point. Now the chances are nine to ten that if this hunter had had a good four power glass he would have been able to see enough through that bush

to have told whether or not the deer was a buck. It is surprising how much brush one can look through with a binocular. Many times I have seen game plainly through the glass where the unaided eye could see nothing but brush or weeds and grass.

Only last fall one of my pards saw a large deer with its head behind some brush. He thought it was a buck but to make sure he took a look through the binoculars he was carrying and plainly saw that it was a doe!

Just a few days ago I was out with a friend after bear, we were still hunting along a beech ridge where the bear were feeding on beech-nuts. A snow squall came up and it snowed so hard for a few minutes that one could see but a few yards. I saw what I thought might be a small cub, but a look through glasses showed it to be a charred stump. At about the same time my friend saw what he thought might be a fox, he looked at it closely, even going so far as to sight the rifle on the object which did not move. Its color did not show through the falling snow and he concluded it was nothing but a stump and went on. Within just a few rods he came to a fresh fox track! If he had been carrying the glasses he would have had a fox as he is a sure shot.

If you like to hunt squirrel with a rifle there is nothing that will increase your pleasure like a good set of small binoculars. And when it comes to hunting woodchucks glasses are indispensable when once you have used them. Here the larger powerful glasses are the best, but the smaller ones will do fine.

I have owned and used several different prism binoculars, but for use in the woods country I have never found anything the equal of the Hensoldt Dialyt Gem. These glasses are about 3½ inches wide by 3¾ inches long when set for use. They have all the adjustments of the finest binoculars made, in fact there is no better binoculars made than the Hensoldt Dialyt glasses. They are practically water proof, which also means that they are dust proof. The Gem weighs but a fraction over eleven ounces, and when carried with a strap around the neck you don't know you have any glasses with you until you want them. I always carry them inside my coat or stag shirt to protect them from brush, rain etc., and as you all know who have carried binoculars very much this is a dusty linty place to carry them, but as yet I have never had to clean the inside of these glasses, and they are as clean as the day I got them from the factory. The power of the Gem is 3½ diameters, and its field of view is 220 yards across at 1,000 yards. For the woods hunter these glasses are sure a GEM. The Hensoldt Company also make a very similar glass same width and just a little longer that is six or eight power which ever you prefer, and they weigh but twelve and a third ounces. For the trapper and others who might want a glass of considerable power these are just the thing. If I remember correctly the prices of these glasses run from a little less than fifty dollars up to sixty-five, and they are well worth the money, as anyone who has used them will say.

The Webley Air Pistol

(Continued from page 9)

to this weight. Five were weighed, and were found to have a variation of not over .05 gr.

The sights on this gun are not so bad, for while they are rather crude in construction, they are plenty good enough for the purpose, and are certainly ahead of the sights on some of the expensive revolvers, as far as shape goes. They are of the regular Patridge style. The rear sight is adjustable for elevation.

The first question that naturally arises about a weapon of this type, is how much power it has, and a convenient method of trying this out was presented in the form of a cake of Ivory soap. The first shot was at the side of the cake of soap, and to the surprise of everyone, the pellet went clear through.

The second shot, which was at the edge of the cake of soap, showed that the force of the pellet was just sufficient to carry it within one-eighth inch of entire penetration, which is certainly very good for a small noiseless gun of this type.

Another test for power was against an old pane of window glass in a sash which had been discarded from a dilapidated building. This test showed that at 10 feet, the pellet would sometimes break the pane of glass, and sometimes would not, although when it failed to penetrate, the pellet was smashed quite flat by the impact.

The ranging powers of the pellet were next tested on a small creek, and it was found impossible to shoot over about 100 yards, as apparently the pellet lost speed so fast that for all practical purposes, the most of its energy was expended in the first 20 yards.

An apparatus was finally arranged to take the velocity of this pellet at a distance of 10 feet, and it was found that the average velocity was 301 f. s., with a bullet weight of 14.75 grains. This corresponds to a figure of 3 ft. lbs. for the energy at 10 ft. from the muzzle, which is just one-fifteenth of that in the .22 caliber short cartridge when fired in a revolver.

The question is just how dangerous this pistol would be in case of an accident, or in case it were used with criminal intent. It is certain that at very short ranges such as 8 or 10 ft., it would be fatal to any small animal such as a rat or sparrow.

I did not make any tests against animate objects, but I lent the gun to an acquaintance who very obligingly started off by shooting a friend in the foot with it. This very interesting demonstration was negative as to results, as it hit on a heavy, thick shoe and only caused the victim to hop around and round the room holding his foot in his hand, whereas the culprit, instead of being contrite at his display of ignorance in his handling of firearms(?), seemed to think that he had done a very smart thing and chuckled in his glee.

There is no doubt that if a bullet from this air pistol should strike a person on the unprotected skin, it would penetrate perhaps

a quarter inch. The greatest danger in its careless use would be to the eyesight, as it seems pretty certain that no great damage would be done if a person were struck on the clothing.

This gun has its greatest usefulness for practice in marksmanship, and for this reason the question of accuracy, of course, is the paramount one.

The Webley & Scott catalogue claims very excellent accuracy for this weapon, and some wonderful targets are shown in the booklet. The first trials were rather discouraging in this respect, as it was found quite difficult to hit small objects at a distance of 10 yards. However, it was soon found that the difficulty was not due to any inherent inaccuracy in the barrel and pellet, but was caused by the jump of the spring, and the extremely hard trigger pull.

After this trigger pull was mastered, it was found that with a careful left-off, very good targets indeed could be obtained.

It was found that there was no use in trying to test the accuracy of this pistol by resting the muzzle while shooting, as the jump of the spring caused quite a disturbance which was more pronounced when shooting from a rest than when shooting offhand.

The target shown in the photograph was obtained at a distance of 10 yds. on the standard American target reduced for this range.

The pistol is fitted with a safety lock, which enables it to be carried cocked without danger of accidental discharge. The barrel is easily removed, and the .17 and .22 barrels are interchangeable on the same frame.

Where the barrel rests at the rear, it is beveled off and bears against a leather washer which acts as a seal to prevent the escape of air. There is another leather washer used in the pistol, which is the main cup washer on the plunger. Extra washers for both of these places are furnished with the outfit.

A few drops of oil on the two leather washers are about all that is necessary to keep the gun in good shape, as there is no powder fouling, and therefore the great nuisance in shooting, which is in cleaning the barrel, is eliminated.

Telescope Mount Troubles

(Continued from page 15)

deducted dealers' discounts. How can you expect them to put on a lot of fine finishing work at the price they receive for them?

I wonder sometimes whether they do not actually lose money on them. To take these mounts, harden the screws and blocks, lap in the threads, grind end of screws square, and do other minor things; takes a good mechanic from three to four hours. Then you have a real micrometer mount, and only then. Precision workmanship takes time and patience and skill, and time and skill are the most expensive items in any fine work, whether it be mechanical, optical, or in the arts.

A Small Town Rifle Club

(Continued from page 10)

with prizes for each class; pick-up matches with clubs of this section, usually in the four positions, no prizes; individual entries in N. R. A. matches and some special matches with clubs such as the Minneapolis Girls' Municipal Rifle Team and a four week schedule in the Columbus Dispatch tournament, a four position set of matches with numerous prizes and a really ambitious purpose for the development of rifle shooting in central Ohio.

Just now our range is being rented to the Isaak Walton League members on Monday night, making four teams using it. They, too, will develop a group of junior riflemen.

In the foregoing you will note the expression "four positions" occurring frequently. They didn't do it that way back in those halcyon days of the muzzle-loader and in the he-could-drive-a-tack-at-fifty-yards period. However, the older clubs in this section are still strong for the "belly stuff." Again, only last week we bumped into a new club that was shooting nothing but the off-hand position! Extremes? We'll say! It is mighty gratifying to note that the newer clubs are willing to take in the standard four position program and that they are making very creditable records. If you noted the scores of the clubs competing in The Columbus Evening Dispatch Tournament, you will see some things there that bear out our contention. Anyway, who would want to learn to shoot prone only? Most any of us can knock a possible that way, now and then. "Animated machine rest"—isn't that what someone called it? It is good enough for setting sights, but it means nothing in the war on crows, prowling cats or the nimble house rat. Give me the all-around rifleman who can unlimber and send two or three pellets after Mr. Bunny before the latter can find the entrance to his underground retreat. The writer knocked all his ground hogs from the standing position last season and most of his crows from the front seat of his car. Our Juniors would never be satisfied with any one of the four positions alone, and we rejoice that the W. J. R. C. course insists on a well rounded out experience and ability before the higher awards can be made. Hasten the day when the fraternity will have a whole program or none!

Where would we be in our shooting activities without the influence and help of The National Rifle Association? Just where many unaffiliated clubs are now—drifting along without a real-for-sure objective and getting further away all the time. It is from THE AMERICAN RIFLEMAN and N. R. A. literature that we get ideas from which to build up a program for the indoor and the outdoor seasons; it is from the same sources we get such ideas as the "par" match, novelty matches and care of equipment—new stuff, or old stuff put where new men will read it. Where, other than from these same sources, could one get such accurate and authoritative information on ballistics, statistics and kindred subjects? Truly, we are fortunate followers of splendid sport with its biggest days ahead!



Conducted by ————— C.B. Lister

Crescent A. C. Hosts to College Riflemen

THE Second Annual Inter-Collegiate Gallery Rifle Match fired shoulder-to-shoulder was staged in New York City, Saturday, April 18. In view of the fact that practically all the National Guard armories in New York and Brooklyn are equipped with 100-yard ranges, which are ill adapted to the standard 50-ft. inter-collegiate distance, there was considerable doubt as to whether or not the matches could be held this year, until the possibility of using the range of the Crescent Athletic Club in Brooklyn was raised. This is the Crescent Club which gave the Crescent Cup to be awarded annually to the high sailor in the President's Match at Perry, and the same Club which has been working with the New York Police Department in an effort to train the Metropolitan Police in the proper use of their guns.

The Crescent Club range was converted into a pistol gallery several years ago, and accordingly required considerable work to rearrange the lights, target trolleys, and other equipment for the 50-ft. distance. However, Mr. F. G. Dalbon, Chairman of the range committee, and Commander Effingham Wilson, a fellow member of the committee, took hold of the proposition very enthusiastically and gave a great deal of their personal time and labor to seeing that the range was properly fitted up.

There may be some seeds of future police shooting activity in the Inter-Collegiate Match, due to the fact that the Range Committee enlisted the support of Supreme Court Judge James Cropsey, the president of the club.

The college riflemen also owe a debt of gratitude to Mr. F. M. Tomlin, of the House Committee, and Mr. William Dobby, of the Athletic Committee of the club, for the arrangements that were made for the college riflemen to eat in the club dining room, at club rates, and for the freedom of the billiard room, bowling alley and library.

The teams which came into town Friday night and those which stayed over Saturday night and Sunday were nicely taken care of by Mr. Frank Wiggins, manager of the Vanderbilt Hotel. The shooters and all the members of the NRA staff were given the advantage of rates which we did not think could be possible at any first-class New York hostelry.

The matches got under way on schedule time, at 10 A.M., under the immediate supervision of A. D. Hinckley, manager of the Columbia University Rifle Team and First Vice President of the Inter-Collegiate Rifle Association. The six firing points were taken up for the morning relay by Columbia, N. I. T. C., C. C. N. Y., Yale, Pittsburgh, and Syracuse. The conditions of the

match called for teams of five, all scores to count, two sighters and ten record shots per man in each of the four positions. The teams drew for firing points and having been assigned to a target, stayed there throughout the match. Four hours and thirty minutes were allowed for a team to complete its score, the team captain having the privilege of rotating his men and positions in any way that he saw fit.

The firing points were naturally a little more than was desirable for firing the prone position, but the targets were very well lighted, the prone benches were substantial, the target trolleys operated without a hitch and clamps fastened to the stanchions at the firing points gave a permanent fastening for spotting scopes.

The men not firing had the freedom of the club so that while the air in the range became rather thick with Lesmok fumes after a while, no one, except Hinckley, who stayed behind the firing points distributing targets from the beginning of the match until the end, was greatly discomforted.

The prone team scores for the first relay showed the effect of the narrow firing points, the highest team total that of 496, hung up by Columbia. C. C. N. Y. and Pittsburgh both registered 495. Yale and M. I. T., both with 97's in their strings, hung up 493, and Syracuse, with two possibles scores and two 99's, hit the greased skid with a 92, for a team total of 490. Syracuse showed no disposition to give up the ghost, however, turning in a team total of 494 sitting, which score, incidentally, remained the high score for this position until the end of the match. M. I. T. registered 493, and Columbia, with two possibles, a 99, a 98 and a 95, registered 492.

In the kneeling position things began to happen, Columbia continuing its beautifully consistent team shooting with an aggregate score of 471. Pittsburgh, at this stage in the game, had a new lease on life and turned in 477, cutting Columbia's lead to nine points. Yale was third for this stage, with 469, one point ahead of C. C. N. Y. M. I. T. turned in 465, while Syracuse slumped again for a total of 452. G. Wallace, the first man to fire standing for Columbia, saw his team's lead cut to one point over Pittsburgh, when he turned in an 83 as against 91 for MacFarlane, lead-off man for Pittsburgh. From that time on however the lads sporting the big blue "C" of Columbia steadily pulled away from all rivals. Devereaux turned in a 95, which was promptly matched by his team mate, Affelder. Stone hung up an 89 and B. Wallace an 88 for a team total of 450, making an average for the five men of 90, an exceptionally good average, considering the fact that every shot fired counted for record. There was no business of picking the five highest

scores to count out of seven or ten competitors

This team total for the standing position was, until the end, seven points higher than any other team was able to produce. Pittsburgh finished with a standing total of 434, team score of 1887, Yale with a team total of 1875 and the New York City College outfit 1870. M. I. T. finished with 409 standing, for a team total of 1860, and Syracuse with 413 for a team total of 1849.

The fans were given five minutes in which to clear the range of smoke and the second relay, consisting of Pennsylvania, Penn State, New York University, Norwich and George Washington went on the line at 2:35. These were the teams that from their showing in the telegraphic matches, had been expected to prove the heavy hitters. Pennsylvania immediately gave evidence of their effectiveness by turning in 499 in the prone position. Norwich was one point behind them, and George Washington one point behind Norwich. All three of these colleges got away to a better start than did Columbia.

In the sitting position the attention of the score board watchers began to be directed toward the finely consistent work that the Columbia riflemen had done in the morning, when only one team of the second relay succeeded in equalling their score of 492 for the sitting position. Norwich got the 492. George Washington could do no better than 487, and Pennsylvania had heavy going with a 94 in their string for a team total of 484. N. Y. U. and Penn State seemed to be unable to hit their stride and were apparently not serious contenders.

In the kneeling position the George Washington team, with Stokes behind the spotting scope, came on with a rush, in an effort to overhaul the leaders. They equalled their sitting score of 487, the lowest individual score being a 95. Pennsylvania registered 474 and Norwich 468. These scores left the Washington entry twelve points to the good over Columbia's morning performance for the first three stages. Norwich was one point below Columbia and Pennsylvania two points below the morning's leaders. It began to look as though the preliminary forecasts as to the second relay producing the real heavy hitters was to be realized.

Crockett of G. W. had an 87 to his credit off-hand, which was four points higher than the score turned in by G. Wallace of Columbia in the same position. Pierce, of Norwich, turned in a 93, which gave his team an 8-point lead over the Columbia University outfit, and Val genti, of Pennsylvania, turned in an 88, which pushed the Pennsylvanians three points ahead of Columbia. However, none of the aliens were able to approach the pair of 95's which had been turned in by Devereaux and Affelder. Norwich got a pair of 85's, George Washington an 85 and an 89, and Pennsylvania an 89 and an 88.

Norwich struck heavy weather at this point, turning in a 77, which left them beyond hope of rescue. George Washington registered an 86 and Pennsylvania, still very much alive, hung up a 91. Trimble, of George Washington, carried the heavy load of winning or losing the match. He did his best, but that was not quite good enough. His score of 86 standing gave George Washington an off-hand score of 433, seventeen points under Columbia's off-hand, and leaving George Washington with a team total of 1904, five points be-

hind Columbia. Williams, of Pennsylvania, turned in an 87 standing, leaving his team with 443 for the off-hand position, and a team total of 1900.

The match, which was scheduled to finish at 7:18, was over at 7:15. There were no protests on the scoring, which was considerable of a testimonial to Ollie Schriver, who had been set to do the job by the N.R.A., particularly in view of the closeness of the race.

The shoulder-to-shoulder match made it evident that the rules relative to positions are still being misinterpreted in some places, and a few corrections of position were required.

The spirit of sportsmanship displayed by the shooters and their cohorts was far above the average, and the Crescent Athletic Club officials were more than enthusiastic on this particular point.

The newspapers in New York had been well advised in advance as to what was going to happen, through the efforts of that indefatigable publicity hound, P. P. Carney, so that while Pete himself was unable to be there and cover the story, the New York papers the following morning gave a story and column of scores, which indicates that the newspapers even in so busy a town as New York, have no grudge against rifle shooting, and will give it plenty of space, provided matches are staged of sufficient importance.

The winning team managers of the various teams and riflemen from the different matches, were "shot" by commercial photographers, in all kinds of combinations, sensible and otherwise, and from all indications, the second annual New York City Inter-Collegiate was a marked success.

The winning team used Model 52 Winchester, with iron sights, and U.S.N.R.A. ammunition. George Washington had a Peterson-Ballard, a Springfield and a Model 52 Winchester on the line, but they shot Remington-Palma through all three of them.

It is generally true that the trend of amateur sports in this country follows the trend of college athletics. Naturally the boys in high school preparing for college pay most attention to the sports which are featured in the larger institutions they expect to attend. For these reasons inter-collegiate rifle shooting should be given all possible attention, not only by the officials of the N.R.A., but by every civilian club located in a school town, and by every member of the Association who has at one time or another graduated from any college or university. The influence of the "old grads" is an influence that is recognized by every institution, and much can be done to spread a string of inter-collegiate shoulder-to-shoulder matches across the country, modelled along the lines of these successful New York City Inter-Collegiate, if the various graduate bodies will take the matter up and see to it that the undergraduate riflemen are given the sympathy and support of the Athletic Councils.

This is the thing that is needed most seriously in the inter-collegiate game at this time. There is no lack of material for the building of rifle teams in the colleges and universities, but there is a decided lack of proper range facilities which can only be remedied through the active financial support of the Athletic Councils.

	Prone	Sitting	Kneel.	Stand.	Total
Columbia					
G. Wallace	99	95	90	83	367
Deveraux	100	100	96	95	391

	Prone	Sitting	Kneel.	Stand.	Total
Affelder	100	98	97	95	390
Stone	97	100	99	89	385
B. Wallace	100	99	89	88	376
Totals	496	492	471	450	1909
George Washington					
Crockett	100	99	99	87	385
Smith	100	98	96	85	379
Everett	99	97	100	89	385
Newcomb	100	97	95	86	378
Trimble	98	96	97	86	377
Totals	497	487	487	433	1904
Pennsylvania					
Valgenti	100	100	92	88	380
Graves	100	95	94	89	378
Feaster	99	94	95	88	376
Dodson	100	100	98	91	389
Williams	100	95	95	87	377
Totals	499	484	474	443	1900
Pittsburgh					
MacFarlane	99	99	99	91	388
Hoehle	99	93	87	83	372
Means	97	96	92	88	374
Casa	100	97	98	89	384
Jorden	100	96	90	83	369
Totals	495	481	434	434	1887
Norwich					
Pierce	100	98	94	93	384
Ellis	100	100	92	85	377
Castle	100	99	94	85	378
Streicher	99	97	92	77	365
Bridgeman	99	98	96	88	381
Totals	498	492	468	428	1886
Yale					
Roth	98	97	94	89	378
Holmes	100	97	100	95	392
Rider	99	99	86	76	360
French	97	96	92	80	365
McArthur	99	97	97	87	380
Totals	493	486	469	427	1875
C. C. N. Y.					
Noyes	100	100	96	80	376
Saltz	99	92	92	84	366
Lichenfels	99	97	95	89	380
Brause	100	97	91	81	369
Solomon	98	92	94	95	379
Totals	495	478	468	429	1870
M. I. T.					
Peterson	99	99	90	84	372
Lane	99	99	92	72	366
Norton	98	99	93	88	378
Holmes	97	99	93	82	371
Flelding	100	97	93	82	372
Totals	493	492	465	409	1860
New York University					
Ferris	100	95	94	94	383
Spunt	89	98	87	85	359
Nathenson	99	91	67	94	351
Lichiri	99	98	88	86	369
Roemisch	99	69	88	82	338
Totals	486	451	422	441	1800
Syracuse					
Frost	99	99	86	84	368
Eastwood	92	98	94	87	371
Reynolds	99	98	85	82	364
Love	100	99	90	71	360
Hefferman	100	100	97	89	386
Totals	490	494	462	413	1849
Penn State					
Frear	97	89	85	75	346
Sealey	94	92	79	78	343
Waters	97	90	73	83	343
Wentworth	94	95	95	85	369
Van Valin	98	98	91	89	376
Totals	480	464	423	410	1777

GALLERY TEAM CHAMPIONSHIPS CLOSE

The Gallery Team Matches of this year failed to produce any such heartbreaking struggle for first place as have the competitions of the past two years.

An old-time championship organization which has failed to show in the last season or two once more forged to the front to win the Civilian Inter-Club Championship at 50 feet. This was the National Capital Rifle Club of Washington, D. C. The old champions, however, entered a new field this year, when for lack of range facilities they deserted the 75 foot competition in which they have always been entered, and fired the 50 foot match. Their score of 2939 was four points ahead of the Ashland, Ohio outfit, and seven points ahead of Akron, Ohio. No comfortable margin of safety at that.

The Lock Haven, Pennsylvania, Club, from which we have been hearing considerable of late, showed that they are not taking it all out in talk by finishing fourth, with a total of 2910.

The National Capital Club, in winning this match, ruined a beautiful column of Winchester

Model 52's used by fifteen of the first seventeen teams, by shooting Peterson-Ballards, Pope-Winchesters and Stevens No. 414. Five of the six men on the team used Palma ammunition, and the other individual used U. S. N. R. A.

It is rather a Peculiar situation that while the majority of the individual matches showed as many or more competitors at 50 feet than at 75 feet, the old civilian standard club range at 75 feet continues to draw the largest entry in the inter-club event. There were thirty-four entries at 50 feet and sixty-seven entries at 75 feet.

The Sheridan Rifle Club showed the way to the field in the 75 foot match with a score of 2955, five points ahead of the Peerless Club of Cleveland, Ohio, and eighteen points above West Bend, Iowa, which finished third. The scores of the two high teams at 75 feet are particularly remarkable when compared with the scores of the two leaders at 50 feet, where the target is usually considered an easier one. Sheridan took the championship shooting Model 52 Winchester, with Peters' ammunition. The Peerless Club gave the new Hoffman Arms Company their first important place, shooting U. S. N. R. A.

There was a wholesome mixture of equipment in the 75 foot match, due probably to the fact that most of the clubs entered in this competition were the old liners, whose members were content with stock guns.

The Inter-Collegiate Championship resulted in a battle between the varsity squad from the University of Pennsylvania and the sharks from the University of Washington. Both of these teams entered the match well fortified by numerous shoulder-to-shoulder matches with the close-holding civilian teams in their localities. Pennsylvania came out on top by the narrow margin of five points, turning in a team total of 2963. Norwich University, always a contender, and Georgetown and George Washington, both of whom have Inter-Collegiate championships to their credit in the past, finished next in order, but scarcely close enough to the two leaders to do more than worry them a little.

The Women's Inter-Collegiate Match was not greatly patronized, in spite of the enormous amount of shooting that is being done by the co-eds throughout the country. It is apparent that either the conditions of this match have been wrong or the college women hesitate about entering nation-wide events.

The University of Washington girls did what the men could not do by winning their section of the Inter-Collegiate Match with the very creditable score of 2798, George Washington University following them with 2771.

The Military School Championship in another event which is conducted at a loss each year. On the fact of it, it would appear that there should be greater interest in rifle shooting in the military schools than in other institutions, and it is hard to understand why the number of entries in this match remain so low each year as to raise the question as to the advisability of continuing the event. Culver Military Academy acquired the Military schools championship this year, with a score of 2885, with a marking of six points over St. Johns Military Academy, at Delafield, Wisconsin.

In the first of the gallery events to be closed, the 11th Infantry captured the National Guard

Team Match with a clean score of 7330. The 121st Engineers, D. C., National Guard, who won the match last year were runners-up, with a score of 7297.

With the issue of the .22 caliber Springfields to the regulars and Guardsmen this match should assume considerably greater importance and much larger proportions.

HART WINS 75 FT. CHAMPIONSHIP AFTER STRUGGLE

A. E. Hart, of Cleveland, Ohio, by virtue of a spurt at the finish worthy of the best traditions of American rifle shooting, captured the gold medal in the seventy-five foot gallery championship for 1925.

Hart, Wade, of Sheridan, Wyoming, and Boeder, of West Bend, Iowa, all three turned in total scores of 593, Hart's and Wade's coming from behind to overtake Boeder. Hart was awarded the match on the basis of his score of 197 in the final stage, two points ahead of Wade's final stage score, and three points ahead of Boeder's.

More special equipment appeared among the medal-winners of this match than in any previous gallery competition. Hart used a Hoffman-Martini with Palma ammunition. Wade used a Model 52 Winchester with Peters ammunition. Boeder used a Petersen-Ballard, with Peters ammunition, and there were two other Petersen-Ballards and a Hoffman-Ballard further down the list of medal-winners.

Eighty competitors took part in the match, fifty-six of whom turned in completed scores. Such well-known shooters as Monahan of Chicago, John of the Canal Zone and Colonel C. E. Stodter failed to find the time to complete their scores.

HIGH SCHOOL CHAMPIONSHIP TO CAPITAL SCHOOL

Central High School Team No. 2 of Washington, D. C., captured the N. R. A. High School Championship for 1925 from a limited field of entries. The national capital marksmen hung up a team total of 2920, shooting the Model 1922 Springfield with U.S.N.R.A. ammunition. Iowa City High School gave the leaders a close race, turning in a team total of 2915.

The Astor Cup Match, inter-high and preparatory school competition, went to St. Johns Military Academy at Delafield, Wisconsin with a team aggregate of 2938. The same Central High School Team from Washington which had won the high school championship finished second in the Astor Cup Match, with a score of 2923. Iowa City was third with 2912.

WILLIAMS WINS GALLERY PISTOL CHAMPIONSHIP

H. C. Williams, of Pasadena, California, has been rated the winner in the 1925 Gallery Pistol Championship Match with a score of 553. M. L. Robinson, of Los Angeles, was but three points behind the leader, while S. E. Worley, another Californian turned in a 543. Otto B. Abel, of Oneonta, New York, who came in fourth with 542 was the highest easterner in the match.

There were twenty-eight entries, of which but nineteen turned in complete official targets.

COLLEGE RIFLEMAN WINS MILITARY CHAMPIONSHIP

Richard Devereux, a member of the Officers' Reserve Corps, and also of the varsity squad of Columbia University, headed the field of fifty-seven entries in the Individual Military Championship, with a score of 743. William Affelder, a team mate of the winner, was runner up with 741. His score outranked that of W. A. Schwarz of Seattle, Washington. The three high competitors in this match all used Model 52 Winchesters and U.S.N.R.A. ammunition.

WADE WINS 50 FT. CHAMPIONSHIP

J. A. Wade, of Sheridan, Wyoming, broke the tape in front of a field of ninety competitors in the Individual Gallery Championship at 50 feet, to add another 1925 Gallery Medal to his already over-burdened chest. Wade, with a score of 598, led Eric Johnson, of Cleveland, Ohio, and L. O. Moore, of New Cumberland, Ohio, by two points. The lowest medal winner was an old friend, A. K. Friedrich, of Ames, Iowa, who turned in a 591.

Seven of the high ten used Model 52 Winchesters. Johnson pinned his faith on a Hoffman; Border, who finished seventh, used a Peterson-Ballard; and Hetland, who finished ninth, used a Springfield. Wade continued to shoot Peters-Tackhole, as did also Friedrich. Johnson shot U. S. N. R. A. and so did one other medal winner. Palma was used by three of the decorated ones, and Precision 75 by three more.

A new element of interest was added to the matches this year with the entrance of fifteen competitors from Anchorage, Alaska. The riflemen from the North failed to break into the medal winning class, but they have made a start, at any rate, and their competition indicates more plainly than anything that could be written the broad adaptability of the small bore shooting game as conducted by the National Rifle Association to all parts of the United States and its outlying possession, regardless of time or weather conditions.

FOURTEEN COMPETE IN MEN'S INDUSTRIAL LEAGUE IN NEW HAVEN

Divided into two divisions the four teams representing eleven of New Haven's principal commercial organizations competed during the gallery season in shoulder-to-shoulder competitions. The rifle makers from the Winchester plant carried off top honors in both divisions, Winchester Team No. 1 leading Division 1 with eight victories and two losses, while Team No. 2 led the second division with seven wins and two losses. Team No. 1 then pounced on No. 2 for the city championship, and according to newspaper reports, defeated their club mates with a score of 487 to 486, the final standing.

Division I			
	W.	L.	Pct.
Winchester No. 1	8	2	.800
Acme Wire	7	3	.700
L. Candee	7	3	.700
L. Candee	7	3	.700
S. N. E. Tel. Co.	2	7	.222
Grelat's	1	8	.111
Seamless	1	8	.111
Division II			
	W.	L.	Pct.
Winchester No. 2	7	2	.777
Index Visible	6	3	.666
E. M. Screw	4	4	.500
Sargent's	3	5	.375
Sargent's	3	5	.375
Safety Car	0	4	.000
Hogson Pettis	0	4	.000

ENCINO COUNTRY CLUB ADOPTS COMPLETE PROGRAM

The Encino Rifle and Revolver Club, a section of the Encino Country Club, at Los Angeles, California, has issued its 1925 program. Space does not permit the printing of the entire program, with all the conditions of the matches and descriptions of the prizes, but the schedule of the matches is as follows:

March 8, 300 yard international target match for Dezert Trophy.

March 22, Standing offhand match—Wiseman Trophy 200 yards.

April 12, 600 yard target B. Trophy match.

April 26, 200 and 300 yard rapid fire match, target D.

May 10, Course "C" qualification, slow fire.

May 24, Course "C" qualification match—Final rapid fire.

June 14, 600 yard target B. Trophy match.

June 28, 200 yard standing, Target A. Wiseman Trophy.

July 12, 300 yard international target match for Dezert Trophy.

July 26, 600 yard target B. Trophy match.

August 9, 200 yard standing target A. Wiseman Trophy.

August 23, 300 yard international target match. Dezert Trophy.

Sept. 13, 200 and 300 yard rapid fire match, target D.

Sept. 27, 600 yard match, target B, trophy match.

Oct. 11, Members match—N. R. A. Medal.

Oct. 25, Course "C" qualification, slow fire.

Nov. 8, Course "C" qualification match, rapid fire.

Nov. 22, 300 yard international target match for Dezert Trophy.

Dec. 13, 200 yard standing offhand match, Wiseman Trophy.

Dec. 27, 600 yard target B, trophy match.

The Encino Club is the first country club of prominence to install a shooting plant capable of accommodating such an elaborate program. The usual country club facilities are ideal from the standpoint of the rifleman, and while it is out of the question to install service rifle ranges of the type enjoyed at Encino, on the grounds of the majority of country clubs small bore ranges may easily be added to the equipment.

It is to be hoped that the example which Encino has set may be followed by other clubs throughout the country.

THE GIRLS' AGAIN

The Girls' Municipal Rifle Team of Minneapolis, Minn., tied in a postal match with the girls team of Central High School, Washington, D. C., with a score 494--494 out of a possible 500 points. The conditions of the match called for teams of ten members to fire ten shots each in the prone position, five high to count, using .22 caliber rifles and iron sights. Miss de LaBarre was the only one of the two teams who turned in a perfect score of 100. Scores follow:

Girls' Municipal		Central High School	
Minneapolis, Minnesota		Washington, D. C.	
de LaBarre	100	Prentiss	99
Mc Courtie	99	Friedberg	99
Johnson	99	Garber	99
Foster	98	Robinson	99
Dale	98	Theis	98
Total	494	Total	494

KOSCIUSKO WANTS PISTOL MATCHES

The Kosciusko Rifle Club, Warsaw Indiana, desires Indoor Pistol Matches at 50 feet with any club during the spring and summer. Challenges should be addressed to Mr. T. A. Parker, Secretary of the Club, at Warsaw.

Official Bulletins — 1924-25 Gallery Matches

National Rifle Association of America

MATCH NO. 7, INDIVIDUAL KNEELING MATCH AT 50 FEET.			
No.	Name	Address	Score
1.	J. A. Wade, Sheridan, Wyoming	398	Winchester 52
2.	Lloyd A. Patton, Blacksburg, Va.	397	Winchester 52
3.	W. M. Dodson, Philadelphia, Penna.	395	Winchester 52
4.	Richard Wilzewski, Monterey, Calif.	393	Winchester 52
5.	Harry E. Brill, Tulsa, Okla.	392	Winchester 52
6.	George W. Smith, Racine, Wisconsin	391	Winchester 52
7.	A. K. Friedrich, Ames, Iowa	390	Niedner
8.	W. M. Affelder, New York City	390	Winchester 52
9.	Russell G. Smith, Akron, Ohio	388	Winchester 52
10.	Wm. D. Christian, Blacksburg, Va.	388	Winchester 52
11.	L. E. Klein, Massillon, Ohio	387	Winchester 52
12.	Hubert H. Renshaw, Kamian, Idaho	387	Springfield
13.	Harold E. Stassen, W. St. Paul, Minn.	387	Winchester 52
14.	L. H. Edwards, Akron, Ohio	386	Winchester 52
15.	F. T. Holmes, New Haven, Conn.	386	Savage
16.	Irvin L. Murray, Cambridge, Mass.	384	No Record
17.	Frank C. Payne, Los Angeles, Calif.	384	Winchester 52
18.	C. C. Berkeley, Newport News, Va.	382	Stevens
19.	Charles Tisch, Massillon, Ohio	381	Winchester 52
20.	B. T. Strickland, Knoxville, Tenn.	381	Winchester 52
21.	Haydon T. Noyes, New York City, N. Y.	381	Winchester 52
22.	C. J. Perry, Saginaw, Michigan	379	Winchester 52
23.	C. D. Wild, Jenesville, Iowa	378	Winchester 52
24.	F. R. Wheatland, Pasadena, Calif.	377	Springfield
25.	Richard A. Devereux, N. Y. City, N. Y.	376	Winchester 52
26.	Morton Solomon, New York City, N. Y.	374	Winchester 52
27.	J. E. Faust, Knoxville, Tenn.	371	Winchester 52
28.	L. K. Krebbs, Halstead, Kansas	367	Winchester 52
29.	C. F. Garner, Newport News, Va.	366	Savage
30.	Prudent Coderre, New Bedford, Mass.	361	No Record
31.	Charles E. Lyman, Middlefield, Conn.	361	Springfield
32.	A. E. Hertzler, Halstead, Kansas	355	B. S. A.
33.	Luther R. Gambill, Tulsa, Oklahoma	354	Winchester 52
34.	C. J. Koehler, Saginaw, Michigan	351	Springfield
35.	Jim Barlow, Halstead, Kansas	341	Winchester 52
36.	William Weston, New York City, N. Y.	339	Savage
37.	G. W. Geety, Ortonville, Minn.	334	Springfield
38.	J. P. Robbins, Saginaw, Michigan	332	Winchester 52
39.	A. Geary Johnson, Washington, D. C.	321	Winchester 52
40.	Edward Seigle, Astoria, L. I., N. Y.	315	Savage

Not Reported

W. P. Dunbar, Culver, Indiana. C. F. Elliott, New Haven, Conn.
 Henry F. Howe, New Haven, Conn. W. F. Roth, New Haven, Conn.
 T. H. Rider, New Haven, Conn. C. H. Simmons, New Haven, Conn.
 John Tasche, Jr., Baltimore, Md. William Upton, Newport News, Va.
 Donald Valentine, New York City

MATCH NO. 8, INDIVIDUAL KNEELING MATCH AT 75 FEET.			
No.	Name	Address	Score
1.	A. E. Hart, Cleveland, Ohio	397	Hoff-Martini
2.	Franklin P. Jensen, S. L. City, Utah	394	B. S. A.
3.	Eric Johnson, Cleveland, Ohio	393	Hoffman
4.	J. S. Dickson, Sheridan, Wyoming	393	Winchester 52
5.	A. M. Siler, Camp Dix New Jersey	391	Winchester 52
6.	J. A. Wade, Sheridan, Wyoming	391	Winchester 52
7.	Ralph Mosteller, Columbus, Georgia	390	Pet-Ballard
8.	T. K. Lee, Birmingham, Alabama	390	Winchester 52
9.	F. E. Border, West Bend, Iowa	388	Pet-Ballard
10.	S. D. Monahan, Chicago, Illinois	387	Winchester 52
11.	B. T. Strickland, Knoxville, Tenn.	386	Winchester 52
12.	H. M. Thomas, New Haven, Conn.	386	Winchester 52
13.	George W. Smith, Racine, Wisconsin	386	Winchester 52
14.	Frank Hogan, Salt Lake City, Utah	385	Winchester 52
15.	Pearl Clapp, Brattleboro, Vt.	384	Stevens
16.	C. T. Westergard, Whiting, Iowa	384	Pet-Ballard
17.	C. E. Stodter, Marfa, Texas	383	Win-Pope
18.	C. O. S. Mallard, Columbus, Georgia	383	Winchester 52
19.	H. S. Willard, Ridgewood, New Jersey	382	Winchester 52
20.	Fred Johansen, Joliet, Illinois	382	Springfield
21.	John Dorweller, West Bend, Iowa	382	No Record
22.	James R. Satava, Cleveland, Ohio	381	Winchester 52
23.	G. W. Lewallen, Columbus, Ga.	380	Savage
24.	O. H. Malberry, West Bend, Iowa	380	Pet-Ballard
25.	Albert J. Heubner, Chicago, Illinois	378	Niedner
26.	Webster C. Wilson, Minneapolis, Minn.	378	Springfield
27.	J. E. Faust, Knoxville, Tenn.	376	Winchester 52
28.	Harry A. Phillips, Salt Lake City, Utah	375	Winchester 52
29.	W. John MacRae, Chicago, Illinois	367	Winchester 52
30.	J. V. McKelvey, Ames, Ia.	355	Winchester 52
31.	J. A. Willners, Philadelphia, Penna.	352	Winchester 52
32.	W. S. Gibbons, Boston, Mass.	347	Springfield
33.	Martin O'Connor, Racine, Wisconsin	341	Savage
34.	Percy A. Sawyer, Bangor, Maine	333	Springfield
35.	Walter Mott, Chicago, Illinois	332	Ballard
36.	John R. Walker, Oak Park, Illinois	315	Winchester 52
37.	O. M. Holland, Columbus, Georgia	304	Savage

Not Reported

R. S. Glomski, Chicago, Illinois. William W. John, Christobal, C. Z.
 F. C. Kimmel, St. Louis, Missouri. Wm. C. Luebbert, Chicago, Illinois.
 Will G. Metz, Sheridan, Wyoming. F. W. Parker, Pr. Chicago, Ill.
 C. W. Randall, Alameda, California. H. A. Weymouth, Salt Lake City, U.

MATCH NO. 12, INDIVIDUAL GALLERY CHAMPIONSHIP AT 75 FEET.			
No.	Name	Address	Score
1.	A. E. Hart, Cleveland, Ohio	197	593
2.	J. A. Wade, Sheridan Wyoming	195	593
3.	F. E. Border, West Bend, Iowa	194	593
4.	T. K. Lee, Birmingham, Alabama	590	Winchester 52
5.	M. W. Dodson, Philadelphia, Penna.	589	Winchester 52
6.	Thomas Girkout, Fort Davis, C. Z.	589	Winchester 52
7.	C. T. Westergard Whiting, Iowa	588	Pet-Ballard
8.	Eric Johnson, Cleveland, Ohio	587	Hoff-Ballard
9.	Frank Hogan, Salt Lake City, Utah	586	Winchester 52
10.	O. H. Maberry, West Bend, Iowa	585	Pet-Ballard
11.	B. T. Strickland, Knoxville, Tennessee	584	Winchester 52

12.	W. C. Wilson, Minneapolis, Minn.	584	Springfield	Palma
13.	C. O. S. Mallard, Columbus Georgia	583	Winchester 52	U.S.N.R.A.
14.	C. E. Nordhus, Highland Park, Illinois	582	Springfield	U.S.N.R.A.
15.	E. J. Giesler, Chicago, Ill.	582	B. S. A.	Precision 75
16.	H. A. Phillips, Salt Lake City, Utah	582	Winchester 52	Palma
17.	Franklin P. Jensen, S. L. City, Utah	582	B. S. A.	Palma
18.	A. J. Heubner, Chicago, Illinois	581	Niedner	Palma
19.	Fred Johansen Joliet, Illinois	581	Springfield	U.S.N.R.A.
20.	John Dorweller, West Bend, Iowa	580	No Record	No Record
21.	H. S. Willard, Ridgewood, N. J.	580	Winchester 52	U.S.N.R.A.
22.	Ed. Groeschel, Louisville, Kentucky	580	Winchester 52	U.S.N.R.A.
23.	H. A. Weymouth, S. L. City, Utah	580	Winchester 52	Palma
24.	Geo. W. Smith, Racine, Wisconsin	580	Winchester 52	Precision 75
25.	J. A. Willners, Philadelphia Penna.	579	Winchester 52	Palma
26.	J. S. Dickson, Sheridan, Wyoming	579	Winchester 52	Peters
27.	J. E. Faust, Knoxville, Tenn.	578	Winchester 52	U.S.N.R.A.
28.	George H. Sittler, Germansville, Pa.	577	Winchester 52	U.S.N.R.A.
29.	H. C. Williams, Pasadena, California	575	Springfield	Palma
30.	Carl Ott, Worcester, Mass.	574	Springfield	U.S.N.R.A.
31.	H. F. McDonald Portland, Oregon	572	Winchester 52	Precision 200
32.	Raymond H. Betts, Glenside, Pa.	571	Winchester 52	Precision 75
33.	R. R. Haines, East Akron, Ohio	571	Winchester 52	Palma
34.	W. John MacRae, Chicago, Illinois	571	Winchester 52	U.S.N.R.A.
35.	Charles German, Germansville, Penna.	569	Winchester 52	U.S.N.R.A.
36.	Edw. Montag, West Bend, Iowa	568	Pet-Ballard	Peters
37.	Chester E. Housman, Seattle Wash.	566	Stevens	Palma
38.	E. M. Farria, Crestline, Ohio	566	Winchester 52	Precision 75
39.	Floyd T. Oswald, Germansville, Penna.	565	Winchester 52	U.S.N.R.A.
40.	Charles D. Meyer, Seattle, Washington	563	Winchester 52	Palma
41.	A. B. Sprague, Worcester, Mass.	562	Stevens	Precision 75
42.	H. V. Roberts, Chicago, Illinois	561	No Record	No Record
43.	A. B. Handwerk, Germansville, Penna.	561	Winchester 52	U.S.N.R.A.
44.	J. O. Norcross, Worcester, Mass.	557	Winchester 52	Precision 75
45.	A. L. Johnson, Seattle, Washington	555	Winchester 52	Palma
46.	Paul G. Peter, Germansville, Penna.	553	Winchester 52	U.S.N.R.A.
47.	John R. Walker, Oak Park, Illinois	552	Winchester 52	Precision 75
48.	W. S. Gibbons, Boston, Mass.	546	Ballard	Precision 75
49.	Earl E. Handwerk, Germansville, Pa.	546	Winchester 52	U.S.N.R.A.
50.	George C. Hamm, Germansville, Penna.	530	Winchester 52	U.S.N.R.A.
51.	Willie Weiss, Germansville, Penna.	528	Winchester 52	U.S.N.R.A.
52.	C. D. Fetherhoff, Germansville, Pa.	513	Springfield	U.S.N.R.A.
53.	George R. Farr, Seattle, Washington	513	Springfield	Palma
54.	Edgar B. Hamm, Germansville, Penna.	500	Winchester 52	Palma
55.	I. V. Cole, Seattle, Washington	499	Winchester 52	Palma
56.	Charles C. Finn, Seattle, Wash.	494	Musket	Palma
57.	F. C. Kimmel, St. Louis, Missouri	189	Not Completed	
58.	A. N. Siler, Camp Dix, N. J.	199	Not Completed	
59.	Harry B. Wells, St. Louis, Mo.	332	Not Completed	
60.	Walter Mott, Chicago, Illinois	192	Not Completed	

Not Reported

C. W. Randall, Alameda, California.	Francis W. Parker, Jr. Chicago, Ill.
Stephen D. Monahan, Chicago, Ill.	F. B. Roziene, Chicago, Illinois.
William W. John, Christobal, C. Z.	Floyd W. Shaw, Lakewood, Ohio.
William C. Luebbert, Chicago, Ill.	Frederick W. Ryan, Brattleboro, Vt.
E. K. Sparks, Columbus, Georgia.	Will G. Metz, Sheridan, Wyoming.
W. H. Damon, Chicago, Illinois.	Irvin L. Murray, Cambridge, Mass.
James R. Satava, Cleveland, Ohio.	Carl Wm. Hamel, Chicago, Illinois.
Charles R. Strong, Ardmore, Penna.	Herbert L. Peterson, Camden, N. J.
J. R. Mooney, Champaign, Ill.	C. E. Stodter, Marfa, Texas.
R. S. Glomski, Chicago, Illinois.	

MATCH NO. 11, 50 FOOT GALLERY CHAMPIONSHIP			
No.	Name	Address	Score
1.	J. A. Wade, Sheridan, Wyo.	598	Winchester 52
2.	Eric Johnson, Cleveland, Ohio	596	Hoffman
3.	Lloyd O. Moore, New Cumberland, Ohio	596	Winchester 52
4.	Emmett, South Minneapolis, Minn.	595	Winchester 52
5.	Richard Wilzewski, Monterey, Calif.	594	Winchester 52
6.	L. H. Edwards, Akron, Ohio	594	Winchester 52
7.	F. E. Border, West Bend, Iowa	594	Peter-Ballard
8.	R. A. Devereux, New York City, N. Y.	593	Winchester 52
9.	Alex Heland, Lake Stevens, Wash.	592	Springfield
10.	A. K. Friedrich, Ames, Iowa	591	Winchester 52
11.	L. E. Klein, Massillon, Ohio	590	Winchester 52
12.	M. W. Dodson, Philadelphia, Penna.	590	Winchester 52
13.	Harry E. Brill, Tulsa, Okla.	589	Winchester 52
14.	J. E. Faust, Knoxville, Tenn.	587	Winchester 52
15.	M. L. Robinson, Los Angeles, Calif.	587	Springfield
16.	M. C. Burt, Thermopolis, Wyo.	587	Peter-Ballard
17.	James S. Wilson, Iowa City, Iowa	586	Springfield
18.	W. M. Affelder, New York City, N. Y.	586	Winchester 52
19.	Walter A. Good, Ashland, Ohio	586	No record
20.	B. T. Strickland, Knoxville, Tenn.	585	Winchester 52
21.	E. J. Back, Vancouver, Wash.	585	Savage
22.	Edward R. Hull, Milton, Wisc.	584	Stevens
23.	Russell G. Smith, Akron, Ohio	584	Winchester 52
24.	George H. Sittler, Germansville, Pa.	584	Winchester 52
25.	George W. Smith, Racine, Wis.	584	Winchester 52
26.	H. Elsenbren, Massillon, Ohio	584	Winchester 52
27.	Samuel Moore, Newtonville, Mass.	582	Winchester 52
28.	Morton Solomon, New York City, N. Y.	580	Winchester 52
29.	Haydon T. Noyes, New York City, N. Y.	580	Winchester 52
30.	Lloyd A. Patton, Blacksburg, Va.	577	Winchester 52
31.	L. A. Pope, Los Angeles, Calif.	576	Springfield
32.	Ralph R. Haines, Akron, Ohio	576	Winchester 52
33.	V. J. Hadin, Schenectady, N. Y.	575	Winchester 52
34.	Floyd T. Oswald, Germansville, Penna.	575	Winchester 52
35.	Edmond H. Levy, Belmont, Mass.	574	Springfield
36.	George Wisdom, Vancouver, Wash.	573	Savage
37.	J. O. Norcross, Worcester, Mass.	572	Winchester 52
38.	Harold E. Stassen, West St. Paul, Minn.	569	Savage
39.	Charles German, Germansville, Pa.	569	Winchester 52
40.	M. E. McManes, Piqua, Ohio	568	Winchester 52
41.	Luther R. Gambill, Tulsa, Okla.	568	Winchester 52
42.	Chas. F. Wilson, Ft. Win. Scott, Calif.	567	Springfield
43.	Wm. G. Nicholson, Washington, D. C.	567	Springfield
44.	Wm. D. Christian, Blacksburg, Va.	567	Winchester 52

No.	Name	Address	Score	Rifle	Ammunition
45.	A. B. Handwerk	Germansville, Penna.	564	Winchester 52	U.S.N.R.A.
46.	Arthur Strode	Vancouver, Wash.	563	Springfield	U.S.N.R.A.
47.	Paul G. Peter	Germansville, Penna.	560	Winchester 52	U.S.N.R.A.
48.	A. E. Hertzler	Halstead, Kan.	559	B. S. A.	U.S.N.R.A.
49.	L. P. Krebhiel	Halstead, Kansas	559	Winchester 52	U.S.N.R.A.
50.	Charles Tisch	Maassillon, Ohio	557	Winchester 52	Peters
51.	G. F. Neal	Anchorage, Alaska	553	Savage	U.S.N.R.A.
52.	Willia Weiss	Germansville, Penna.	552	Winchester 52	U.S.N.R.A.
53.	Harry I. Stasser	Anchorage, Alaska	552	Savage	U.S.N.R.A.
54.	Albert Black	Albion, Ind.	552	Winchester 52	Precision 75
55.	Felix V. Lanotti	Los Angeles, Calif.	548	Winchester 52	Palma
56.	Charles E. Hicks	Pique, Ohio	548	No record	No record
57.	T. S. Bevers	Anchorage, Alaska	547	Savage	U.S.N.R.A.
58.	Earl Handwerk	Germansville, Pa.	547	Winchester 52	U.S.N.R.A.
59.	Jim Barlow	Halstead, Kansas	547	Winchester 52	U.S.N.R.A.
60.	William Weston	New York City, N. Y.	545	Savage	U.S.N.R.A.
61.	C. R. Dillabaugh	Vancouver, Wash.	545	Musket	U.S.N.R.A.
62.	Frank Powell	Brush Prairie, Wash.	543	Savage	U.S.N.R.A.
63.	H. L. Bliss	Anchorage, Alaska	541	Savage	U.S.N.R.A.
64.	S. V. Haagen	Orchards, Wash.	541	Savage	U.S.N.R.A.
65.	George C. Hamm	Germansville, Penna.	537	Winchester 52	U.S.N.R.A.
66.	C. D. Fetherhoff	Germansville, Penna.	535	No record	No record
67.	V. C. Andersen	Anchorage, Alaska	532	Savage	U.S.N.R.A.
68.	Edgar B. Hamm	Germansville, Penna.	528	Winchester 52	Palma
69.	T. C. Monroe	Anchorage, Alaska	516	Savage	U.S.N.R.A.
70.	Ira S. Bailey	Anchorage, Alaska	513	Savage	U.S.N.R.A.
71.	Jess Landers	Anchorage, Alaska	504	Savage	U.S.N.R.A.
72.	M. Andersen	Anchorage, Alaska	488	Savage	U.S.N.R.A.
73.	M. A. Boyle	Anchorage, Alaska	483	Savage	U.S.N.R.A.
74.	Oscar C. Neilsen	Anchorage, Alaska	467	Savage	U.S.N.R.A.
75.	George E. Anderson	Anchorage, Alaska	466	Savage	U.S.N.R.A.
76.	R. J. Grover	Anchorage, Alaska	466	Savage	U.S.N.R.A.
77.	R. C. Courtney	Anchorage, Alaska	441	Savage	U.S.N.R.A.

Not Reported

Marshall Algar, Orchards, Wash.
 Carl W. Hamel, Chicago, Ill.
 John E. Meals, Anchorage, Alaska
 Frederik W. Ryan, Brattleboro, Vt.
 A. M. Siler, Camp Dix, N. J.
 C. D. Wild, Janesville, Iowa

Erwin J. Heise, Milwaukee, Wis.
 W. A. Schwarz, Vancouver, Wash.
 John Tasche, Baltimore, Maryland
 William Upton, Newport News, Va.
 J. S. Alban, Massillon, Ohio

MATCH NO. 17, CIVILIAN INTERCLUB CHAMPIONSHIP AT 75 FEET.

No.	Name	Address	Score	Rifle	Ammunition
1.	Sheridan R. C.	Sheridan, Wyoming	2955	Winchester 52	Peters
2.	Peerless R. C.	Cleveland, Ohio	2955	Hoffman	U.S.N.R.A.
3.	West Bend R. C.	West Bend, Iowa	2937	Ballard	Peters
4.	Deerfield G. C. No. 1	Kings Mills, Ohio	2928	Stevens	Precision 75
5.	Roberts Island R. C. No. 1	Stockton, Cal.	2927	Ballard	Precision 75
6.	Salt Lake City R. C. No. 1	S. L. City, Utah	2925	Winchester 52	Palma
7.	McCook Field R. C. No. 1	Dayton, Ohio	2921	Stevens	Precision 75
8.	Hamilton R. C. No. 3	Chicago, Illinois	2903	Ballard	Precision 75
9.	Quinnipiac R. C. No. 1	N. Haven, Conn.	2892	Winchester 52	Precision 75
10.	Columbus R. C.	Columbus, Georgia	2889	Winchester 52	Precision 200
11.	Brattleboro R. C.	Brattleboro, Vermont	2889	Stevens	Peters
12.	Centennial R. C.	Chicago, Illinois	2878	B. S. A.	Precision 75
13.	Bellingham R. C.	Bellingham, Wash.	2874	Stevens	Precision 200
14.	Brooklyn R. C.	New York City, N.Y.	2869	Ballard	Precision 200
15.	Perth Amboy R. C.	Perth Amboy, N.J.	2858	Winchester 52	Precision 200
16.	Frankford Arsenal R. C.	Philadelphia, Pennsylvania	2856	WinPope	U.S.N.R.A.
17.	Seattle R. C. No. 1	Seattle, Wash.	2851	Winchester 52	Palma
18.	Deerfield G. C. No. 2	Kings Mills, Ohio	2849	Peters	U.S.N.R.A.
19.	Case Eagle R. C.	Racine, Wisconsin	2848	Savage	U.S.N.R.A.
20.	McCook Field R. C. No. 2	Dayton, Ohio	2847	Savage	Precision 75
21.	Hawthorn R. C.	Chicago, Illinois	2842	Winchester 52	Precision 75
22.	Bear Rock R. C.	Germansville, Penna.	2839	Winchester 52	U.S.N.R.A.
23.	Lakewood R. C. No. 1	Lakewood, Ohio	2835	Winchester 52	Precision 200
24.	Wilmington R. C.	Wilmington, Ohio	2834	Winchester 52	Precision 200
25.	Claremont R. C.	Claremont, N. H.	2831	Stevens	Precision 75
26.	Fort Wayne R. C.	Fort Wayne, Indiana	2817	Winchester 52	Precision 75
27.	Franklin R. C.	Franklin, Pennsylvania	2814	Springfield	U.S.N.R.A.
28.	Roberts Island R. C.	Stockton, Calif.	2813	Stevens	U.S.N.R.A.
29.	Mound City R. C.	Webster Groves, Mo.	2811	Winchester 52	U.S.N.R.A.
30.	Portland R. C.	Portland, Oregon	2809	Winchester 52	Precision 200
31.	Ridgewood R. C.	Ridgewood, N. J.	2793	Winchester 52	U.S.N.R.A.
32.	Green Mountain R. C.	Rutland, Vermont	2791	Savage	Precision 75
33.	5th City R. C.	Cleveland, Ohio	2790	Winchester 52	Precision 75
34.	Seattle R. C. No. 2	Seattle, Wash.	2788	Winchester 52	Palma
35.	Brattleboro R. C. No. 1	Brattleboro, Vt.	2781	Stevens	Peters
36.	Minneapolis R. C.	Minneapolis, Minn.	2758	Winchester 52	Precision 75
37.	Spang-Chalfant R. C. No. 1	Pittsburgh, Pa.	2750	No record	No record
38.	Bellingham R. C. No. 1	Bellingham, Washington	2745	Stevens	Precision 200
39.	Louisville National R. C.	Louisville, Ky.	2745	Winchester 52	U.S.N.R.A.
40.	Lakewood R. C. No. 2	Lakewood, Ohio	2734	Winchester 52	U.S.N.R.A.
41.	Bear Rock R. C. No. 2	Germansville, Pa.	2729	Winchester 52	U.S.N.R.A.
42.	Denver City R. C.	Denver, Colo.	2724	Pet-Ballard	U.S.N.R.A.
43.	Chicago R. C. Team No. 1	Chicago, Ill.	2724	Winchester 52	U.S.N.R.A.
44.	East Orange R. C. No. 1	E. O. N. J.	2701	Springfield	U.S.N.R.A.
45.	San Francisco Tele. R. C.	S. F. Calif.	2696	Winchester 52	No record
46.	Studebaker R. C.	Detroit, Michigan	2696	Winchester 52	U.S.N.R.A.
47.	Claremont R. C. No. 2	Claremont, N.H.	2692	Stevens	Precision 75
48.	Studebaker R. C. No. 3	Detroit, Mich.	2677	Winchester 52	Palma
49.	Walden R. C. Team	Walden, Colo.	2674	Stevens	Western
50.	East Orange R. C. No. 3	E. O. N. J.	2667	Winchester 52	Precision 75
51.	Chicago R. C. Team No. 2	Chicago, Ill.	2660	No record	No record
52.	Spang-Chalfant R. C. No. 2	Pittsburgh, Pa.	2659	No record	No record
53.	Yavadanac R. C.	Dunkirk, N. Y.	2624	Springfield	U.S.N.R.A.
54.	D. & H. Police R. C.	Albany, New York	2577	Springfield	U.S.N.R.A.
55.	Rocheater R. C.	Rochester, N. Y.	2567	Winchester 52	Precision 75
56.	East Orange R. C. No. 2	E. O. N. J.	2557	Savage	U.S.N.R.A.
57.	East Orange R. C. No. 4	E. O. N. J.	2435	Savage	U.S.N.R.A.
58.	Studebaker R. C. No. 2	Detroit, Mich.	2351	Springfield	U.S.N.R.A.

Not Completed

Remington Rifle Team, Bridgeport, Conn.

Not Reported

Hamilton R. C. No. 1, Chicago, Ill.
 Roberts Island R. C. No. 2, Stockton, Cal.
 Hamilton R. C. No. 2, Chicago, Ill.
 Seattle R. & R. C., Seattle, Wash.

Seattle R. C. No. 2, Seattle, Wash.
 Banceo Rifle Association, Bangor, Me.
 E. Orange R. C. No. 5, E. Orange, N.J.
 McKean Co. R. C., Bradford, Pa.

MATCH NO. 18, N. R. A. INTERCOLLEGIATE CHAMPIONSHIP.

No.	Name	Address	Score	Rifle	Ammunition
1.	University of Penna.	Philadelphia, Pa.	2963	Springfield	U.S.N.R.A.
2.	University of Wash.	Seattle, Wash.	2958	Winchester 52	Precision 200
3.	Norwich University	Northfield, Vermont	2948	Winchester 52	U.S.N.R.A.
4.	Georgetown University	Washington, D.C.	2946	Winchester 52	U.S.N.R.A.
5.	George Washington Univ.	Wash., D. C.	2937	No record	No record
6.	Modesto Junior College	Modesto, Cal.	2934	Springfield	U.S.N.R.A.
7.	Boston University	Boston, Mass.	2932	Springfield	U.S.N.R.A.
8.	Iowa State College	Ames, Iowa	2930	Winchester 52	Precision 75
9.	Columbia University	N. Y. City, N. Y.	2923	Winchester 52	U.S.N.R.A.
10.	Ohio State University	Columbus, Ohio	2920	Springfield	U.S.N.R.A.
11.	Syracuse University	Syracuse, N. Y.	2897	No record	No record
12.	College City of N. Y.	N. Y. City, N. Y.	2889	Winchester 52	Precision 75
13.	University of Buffalo	Buffalo, N. Y.	2886	Winchester 52	Precision 75
14.	Drexel Institute	Philadelphia, Penna.	2869	Springfield	U.S.N.R.A.
15.	Johns Hopkins Univ.	Baltimore, Md.	2865	No record	No record
16.	Gettysburg College	Gettysburg, Penna.	2864	Springfield	U.S.N.R.A.
17.	St. Johns College	Annapolis, Maryland	2843	No record	No record
18.	Dartmouth College	Hanover, N. H.	2792	No record	No record
19.	M. I. T. Freshmen	Cambridge, Mass.	2788	No record	No record
20.	Syracuse Freshmen	Syracuse, N. Y.	2761	No record	No record
21.	Rensselaer Poly. Institute	Troy, N. Y.	2677	Springfield	U.S.N.R.A.
22.	Des Moines University	Des Moines, Ia.	2533	Winchester 52	U. S. Short

MATCH NO. 19, WOMEN'S INTERCOLLEGIATE CHAMPIONSHIP

No.	Name	Address	Score	Rifle	Ammunition
1.	University of Wash.	Seattle, Wash.	2798	Winchester 52	Precision 200
2.	George Washington Univ.	Wash., D. C.	2771	No record	No record
3.	Univ. of Maryland	College Park, Md.	2516	Springfield	U.S.N.R.A.
4.	Oakla. A. & M. College	Stillwater, Okla.	2344	No record	No record

MATCH NO. 21, MILITARY SCHOOL CHAMPIONSHIP

No.	Name	Address	Score	Rifle	Ammunition
1.	Culver Military Academy	Culver, Ind.	2885	Winchester 52	Peters
2.	St. Johns Military Acad.	Delafield, Wis.	2879	No record	No record
3.	N. Y. Military Acad.	Cornwall on Hud.	2852	Winchester	U. S. Short
4.	Northw. M. & N. Acad.	Walworth, Wis.	2798	Springfield	Palma
5.	Massanutten Acad.	Woodstock, Va.	2384	Musket	U. S. Short

MATCH NO. 24, REGIMENTAL TEAM MATCH

No.	Name	Address	Score	Rifle	Ammunition
1.	11th U. S. Infantry	Fort Benjamin Harrison, Indiana	Capt. E. A. Green		
			Ammunition		Silver Medals
			7330	Springfield	U.S.N.R.A.
2.	121st Engineers	D. C. N. G., Washington, D. C.	Capt. C. S. Shields		
			Ammunition		Bronze Medals
			7297	Springfield	U.S.N.R.A.
3.	7th U. S. Infantry	Vancouver Barracks, Washington	Capt. A. C. Young		
			Ammunition		Bronze Medals
			7229	Winchester	
4.	160th Infantry	California N. G., Los Angeles, California	Sgt. F. C. Payne		
			Ammunition		
			7224	Springfield	Palma
5.	111th Infantry	Penna. N. G., Philadelphia, Penna.	Lieut. M. W. Dodson		
			Ammunition		
			7111	No record	No record
6.	105th Cavalry	Wisconsin N. G., Milwaukee, Wis.	Capt. K. W. Harkins		
			Ammunition		
			7091	Springfield	U.S.N.R.A.

NOT COMPLETED—17th U. S. Infantry, Fort Omaha, Nebraska.
 NOT REPORTED—2nd U. S. Engineers, Fort Sam Houston, Texas.

MATCH NO. 25, INDIVIDUAL MILITARY CHAMPIONSHIP, 1925

No.	Name	Address	Score	Rifle	Ammunition
1.	Richard Devereux	O.R.C., N. Y. City	743	Winchester 52	U.S.N.R.A.
2.	W.M. Affelder	O.R.C., N. Y. City	741	Winchester 52	U.S.N.R.A.
3.	W. A. Schwarz	Seattle, Wash.	741	Winchester 52	U.S.N.R.A.
4.	C. M. Easley	Capt. 4th. Wright, Wash.	739	Winchester 52	Palma
5.	T. Girkout	Sgt. 14th Inf. Ft. Davis, Cal.	732	Winchester 52	U.S.N.R.A.
6.	H. C. Williams	Sgt. Cal. N. G., Pasadena	728	No record	No record
7.	E. G. Parg	Bellingham, Wash.	726	Stevens	Precision 200
8.	R. L. Lucas	Blacksburg, Va.	726	Winchester 52	U.S.N.R.A.
9.	L. A. Pope	Cpl. Cal. N. G. Los Angeles	726	Springfield	Palma
10.	J. S. Wilson	Iowa N. G., Iowa City	725	Springfield	U.S.N.R.A.
11.	C. F. Wilson	LT. USA, Ft. Winfield Scott	723	Springfield	Palma
12.	George Satava	Saginaw, Michigan	721	Winchester 52	U.S.N.R.A.
13.	C. E. Soder	Col. Cavalry, Marfa, Tex.	718	Winchester 52	U.S.N.R.A.
14.	W. Westen	LT. NY. NG. N. Y. City	716	Savage	U.S.N.R.A.
15.	R. D. Wheeler	Chicago, Ill.	709	Stevens	U.S.N.R.A.
16.	E. McKnight	Cpl. Cal. NG. Los Angeles	705	Springfield	U.S.N.R.A.
17.	B. R. Nordwell	Cal. NG. Los Angeles	702	Springfield	U.S.N.R.A.
18.	W. H. Damon	Chicago, Ill.	700	Springfield	U.S.N.R.A.
19.	D. H. Huddleson	Cal. NG. Los Angeles	698	No record	No record
20.	R. A. Laqueser	New York City, N. Y.	686	Savage	U.S.N.R.A.
21.	O. B. Shawhan	Des Moines, Iowa	671	Savage	Western
22.	M. J. Kelly	New York City, N. Y.	667	Savage	U.S.N.R.A.
23.	Edward Seigle	New York City, N. Y.	660	Savage	U.S.N.R.A.
24.	J. J. Brown	Milestone, L. I., N. Y.	633	Savage	U.S.N.R.A.
25.	Lieut. Zeller	Cal. NG. Los Angeles	625	Springfield	U.S.N.R.A.
26.	H. C. Wagner	N. Y. City, N. Y.	604	Savage	U.S.N.R.A.
27.	C. K. Canfield	N. Y. City, N. Y.	604	Savage	U.S.N.R.A.
28.	A. S. Murray	New York City, N. Y.	602	Savage	U.S.N.R.A.
29.	H. J. Duffield	Los Angeles, Cal.	599	Winchester 52	U.S.N.R.A.
30.	M. L. Miller	Cal. NG. Los Angeles	594	No record	No record
31.	G. Englehardt	N. Y. City, N. Y.	548	Savage	U.S.N.R.A.
32.	D. Sangster	Cal. NG. Los Angeles	539	No record	No record
33.	V. Marcheselli	LT. NY. NG. N. Y. City	524	Savage	U.S.N.R.A.

Not Completed

Sgt. James Marino, N. Y. City, N. Y.
 J. J. Bowden, New York City, N. Y.
 Leo Hoek, Los Angeles, Calif.

Not Reported

L. A. M. Siler, Camp Dix, N. J.
 R. D. Johnson, Los Angeles, Cal.
 F. W. Parker, J., Chicago, Ill.
 L. Belt, Los Angeles, Cal.
 Cecil V. McCoy, New York City, N. Y.
 L. C. Rupprecht, Los Angeles, Calif.
 C. R. Burdette, Baltimore, Md.
 Vincent Haertel, New York City, N. Y.
 Andrew Grosskopf, New York City, N. Y.
 Hans E. Baad, New York City, N. Y.

F. Ripper, Los Angeles, Cal.
 John Trotter, New York City, N.Y.
 H. B. Wilson, New York City, N. Y.
 M. C. Story, Los Angeles, Cal.
 Jack Grande, New York City, N. Y.
 John Garmarti, New York City, NY
 Wm. H. Leonard, New York City
 W. G. Nicholson, Washington, D. C.
 Felix V. Lanotti, Los Angeles, Cal.
 N. Y.

THE DOPE BAG



**A FREE SERVICE TO TARGET, BIG GAME AND FIELD SHOTS
ALL QUESTIONS BEING ANSWERED DIRECTLY BY MAIL**

Rifles and Big Game Hunting: Major Townsend Whelen Pistols and Revolvers: Major J. S. Hatcher
Shotgun and Field Shooting: Captain Charles Askins
Every care is used in collecting data for questions submitted, but no responsibility is assumed for any accidents which may occur.

The 32-40 and 38-55

By Townsend Whelen

I WAS very much interested in the article "Fixed Fodder for the 32-40" by Alfred K. Fredrich, which appeared in the August 1, issue of the AMERICAN RIFLEMAN as I was planning on having a similar rifle built only in .38-55 cal. instead of the 32-40.

Have the following actions readily obtainable—Remington Rolling-block, Remington Hepburn, and Winchester single shot. Which would you recommend? I intend to have this rifle fitted with a Niedner tight chambered barrel thirty-six inches long and wish it to weigh about fourteen pounds. Nickel steel barrel, of course.

What would be the highest velocity obtainable with safety and accuracy with such a rifle with full jacket bullets? with alloy gas jacket bullets? What loads would you advise for trial?

I note that you do not consider the ordinary .38-55 as very accurate. I have an 1894 Winchester in this caliber which I recently had fitted with a new nickel steel barrel and which seems to be very accurate, as ordinary hunting rifles go. At least it makes the 30-30's, 32 specials, 303's, and 351's look sick when it comes to a question of groups. This seems to be especially true with hand-loaded black powder ammunition. When shot from elbow and well padded muzzle rest it shoots poorly—about two inch groups at fifty yards—but when I shoot it off hand it does the best of any rifle I ever used, and when I shoot prone and let the hand with which I grasp the fore-end rest lightly against a stake or tree to steady my holding, I can get slightly less than inch groups at 50 yards. I do this regularly so I know it is not accidental. Bullets are cast in a Winchester mold and shot unsized and lubricated by hand. Cartridges loaded in a Winchester tool, which gives only a light crimp. I also use a 175 gr. bullet cast in a cut down Winchester mold with 25 gr. F.F.G. black with heavy wad seated down hard on the powder. This wad seems to promote better burning and sweeps the barrel clean at every shot, so I never have trouble with fouling with this light load. This load also gives slightly less than inch groups at 50 yards.

I also use a round ball or buck shot load casting the ball in an old Colts .36 cal. mold which is slightly oversize for this barrel. At least when the ball is seated half its diameter in the case the action of the rifle closes a little hard. This load makes half inch groups at 25 yards and does very well at 50 yards, well enough so I get rabbits etc. at that range. I propel this round ball with 10 gr. F.F.G. black with a heavy wad on top of the powder and a thin wad of lubricant in the case behind the ball. I once

tried this load at 220 yards on a still day and put five consecutive shots in a ten inch group.

And now comes the beautiful part—a trait, in my experience, peculiar to this one rifle, namely, it shoots all loads to center at the distances I use them without any change in the sighting. I carry it sighted to shoot the Remington high power loads to center at 100 yards. With the same sighting it shoots the low power smokeless, black powder full charge, and black powder shortrange, loads to center at 50 yards and the little round ball load to center at 25 yards. This is just a peculiar coincidence I am sure, for when I use the Winchester high velocity loads, I find it shoots six inches higher than the Remington Hi-Power loads, which have a higher velocity.

I would like to work up good smokeless loads for the 175 gr. bullet and the round ball. What would you advise me to try?

I intend to get several new molds and do a lot of experimenting with this rifle this winter. Also I want a new loading tool. The Winchester is too slow as well as being non-adjustable. Is there anything on the market better than the Ideal for this cartridge? How about the Yankee Specialty Co. tool?

Can you tell me how the .32 rim fire cartridge as made at present (I think it is obtainable loaded with Lesmok) compares with the .22 rim fire? I want a cheap short range cartridge for killing gophers, crows, etc. about the farm. Would like something less powerful than the 32-20 but with better killing qualities than the .22 L.R. The .32 R.F. would be O.K. if accurate.

Will the 1895 Winchester action handle the .400 Whelen cartridge? Do you consider that a .30 Newton and one of the proposed .40 Newton rifles would prove any better for African use than an 1895 Winchester fitted with a 28-inch barrel for the .30-06 cartridge and an 1895 Winchester with 28-inch barrel for the .400 Whelen cartridge?

P. S. I have a .30-30 Model 1894 Winchester with half octagon barrel with bore fitted. Would it be possible to have this re-bored for the .38-55 cartridge? This rifle is taken down. L. P., South Borden, Mich.

Answer (by Major Whelen). I have your letter of the 18th instant relative to 32-40 and particularly .38-55 rifles. Using fixed ammunition, accuracy with cartridges having the bullets seated as deeply into the case as these two are is more or less problematical. The bullet does not extend a considerable distance out of the case as in more modern ammunition, and there is no chance for

the throat of the chamber to take hold of the projecting portion of the bullet and straighten it up in the bore before discharge. The cartridge either lies in the bottom of a rather large chamber, or else it lies in some other position in such a chamber to which it is forced by the tension of the extractor on the rim. Therefore it does not lie in line with the axis of the bore. The average size of the bore of the 32-40 is .3205-inch groove diameter, and the factory bullet measures about .319-inch. The average groove diameter of factory .38-55 rifles is about .381-inch, and the factory bullets measure .373-inch. With lead bullets, when the cartridge is fired, the bullet first expands to the size of the neck of the chamber, and is then swaged down to the size of the bore. With smokeless powder and jacketed bullets the bullet does not expand in the case or chamber, but enters the rifling surrounded with gas, and with gas escaping all around it. After passing two or three inches up the barrel, the jacketed bullet encounters enough resistance from its contact with the lands to cause the powder gases back of it to finally expand it to fit the bore snugly, and to shut off the escape of gas. This action with smokeless powder and jacketed bullets takes place in all commercial high power rifles, but is particularly evident in a rifle like the .38-55 where there is so much difference (about .006-inch) between the size of the bore and the size of the bullet. I would expect rather had erosion in the .38-55 from the very free escape of gas at the breech before the bullet has sealed the bore.

The usual lack of fine accuracy in rifles using fixed ammunition with bullets seated as deeply as these, is due to the fact that the bullet usually deforms itself considerably as it jumps from the case into the rifling, and is swaged down or up during the process. It issues from the muzzle with its center of gravity not conforming to its center of form. Out of the muzzle it must of necessity rotate around its center of gravity, but the effect of the air resistance on its form is such as to cause it to take a spiral or corkscrew flight which is slightly different for every bullet. In the case of your .38-55 model 1894 rifle which seems to shoot well with three loads, the chances are that there is some lucky peculiarity about the chamber and throat which makes it form a most perfect swedge for the lead bullets, so that every bullet is swaged or deformed nearly alike. You are lucky about this barrel, and you had better stick to it.

In a made to order barrel, and with hand loaded ammunition one should be able to get away from these old types of design which are to say the least not conducive to the best accuracy. I have had in mind for several years a made to order and modernized .38-55 rifle which I believe would show much superior accuracy, although I have never heard of such a scheme being tried. The barrel should be of nickel steel to use jacketed bullets only, although lead alloy bullets might also be used, and the results with them ought to be good. The groove diameter should be .376-inch and the bore diameter .368-inch, with a twist of rifling of one turn in 18 inches. The chamber should be tight so that it will just accept an uncrimped case of Remington manufacture when a .375-inch bullet is seated in it without crimp. The jacketed or lead alloy bullet of 255 grains should be seated in the case with only about one-fourth inch of the base of the bullet inside the case, and with a long portion of the cylindrical bearing of the bullet extending outside the case. Then the barrel should be throated so as to perfectly accept and center this cylindrical portion of the bullet extending out of the case, and should also be cut so as to exactly meet the ogive or curve of the point of the bullet. The result will be that the bullet will be most perfectly centered in the bore before firing, with its axis in line with the axis of the bore, and the whole cartridge will be straightened up in the chamber. Also by seating the bullet only a short distance into the case, the powder space of the case will be considerably increased, more powder

can be used, the pressures will be lighter, and increased velocity and better burning of the powder will result. A special straight line reloading tool will be required, and it may be necessary to ream the cases at the neck to get uniform wall thickness around the neck. Such a barrel should handle its special ammunition to perfection, but it will probably not be possible to even insert the regular commercial factory loaded cartridges into the chamber, and even if you can insert it, it is probable that such a barrel will not shoot the factory loaded ammunition nearly as well as the regular factory barrel.

I should have this barrel made of about No. 3 weight, and not more than 30 inches long. I think that practically all smokeless powder will burn completely within a 30 inch barrel, and that one gains nothing at all in increasing the length. Fourteen pounds is too heavy unless you are going to use the rifle only from rest, or unless you shoot every day so that your muscles get accustomed to holding the rifle without muscular tremor. Not over 11 pounds would be a better weight. I would advise the Winchester single shot action instead of the other two you have. The Niedner Rifle Corporation should be able to make the complete rifle and straight line reloading tool for you.

With such a rifle I would expect best results from jacketed bullets, 255 grains, and perhaps a du Pont No. 16 powder. We have no previous experience to tell us just what the powder charge should be, so we will have to start with a rather light charge, and work up a grain at a time, watching the bases of the cases for undue expansion. In this case the bases of the case will expand from high pressure before the primer shows signs of it. When the case seems to be expanded just in front of the head (extracting flange) so that the case sticks a little in the chamber when you come to extract, it is time to stop increasing the powder charge, and drop the charge about two grains weight. With such a barrel and ammunition, and with the 255 grain jacketed soft point bullet, I should start with a charge of not more than 30 grains of du Pont No. 16 powder. This charge should give a muzzle velocity of about 1,600 f.s. I think it probable that by experiment you will find that you can use about 36 grains of this powder which should give you a velocity of about 2,000 f.s., but would certainly not try it at first, and not until you have worked up to it a grain at a time from 30 grains. It might be that 36 grains will give a very dangerous pressure, but I think not as the increased powder space due to loading the bullet projecting so far out of the case makes a lot of difference. But be sure to start with 30 grains and work up. Remember, such a barrel has not been tried yet, and I may be wrong on this charge.

Du Pont No. 80 powder is not suited to the .38-55 cartridge expect for load giving very moderate velocity. In regular .38-55 barrels and with the .255 grain jacketed bullet, 16.4 grains of No. 80 powder is the absolute maximum load, giving a muzzle velocity in 26 inch barrel of about 1,320 f.s. If more No. 80 powder be used an undue pressure will be exerted in the base of the cartridge case, the case will be swelled at the base so that it is hard to extract, and the head of the case may even be blown off. No. 80 powder, particularly, is not suited for use in larger cartridges in Ballard action. This action, most excellent for smaller cartridges, is most decidedly not a good action for larger cartridges and smokeless powder. In a .32-40 Ballard with Winchester barrel, I have had low pressure smokeless loads which would be perfectly satisfactory in a Winchester single shot action, blow the heads off in the Ballard action, setting the hammer to full cock, and leak gas all around the breech block. I should say that with a barrel such as this one we are discussing, if you wish to use lead alloy bullets you had better not try to use more than 14 grains weight of du Pont No. 80 powder. Du Pont No. 16 powder would of course be entirely unsuitable for use with lead alloy bullets, although

30 grains of it might do good work with a gas check bullet.

For your information, the average accuracy at 200 yards obtained at the Winchester plant when testing .38-55 Model 1894 rifles is groups measuring 6.70 inches with low powder smokeless cartridges, and 7.60 inches with Winchester High Velocity cartridges. Similarly with the .30-30 rifle and cartridge it is 6.40 inches. Niedner could probably rebore your .30-30 Winchester Model '94 rifle to .38-55 caliber, but the cost would probably be about the same as to make an entirely new barrel as he would have to make fixtures to hold the small barrel in the boring, reaming, and rifling machines.

I think that you will find that the .25 rim fire cartridge of Remington make particularly, is much better suited to your needs than the .32 Rim Fire cartridge.

I think that the Winchester Model '95 action could be made to handle the .400 Whelen cartridge, but it has never been tried. I would, however, rather expect that the action would wear out before the barrel on account of the set back of the breech block, and the consequent increase in head space up to the point where the case separated in front of the head.

When it comes to considering the suitability of rifles for African game, one must properly divide the game into two classes, the thin skinned game and the thick skinned game. Thin skinned game is the easiest to kill, and is almost invariably killed at rather very long range. A rifle using the .30-06 cartridge is ideal for the thin skinned game, and much better for this purpose than a rifle handling a cartridge like the .400 Whelen. On the other hand the .400 Whelen should do quite well for all thick skinned game (except that a poor shot should not take on elephant with it) while the .30-06 would hardly be suitable at all except in the hands of a very exceptional shot when using the 220 grain full jacketed blunt point bullet.

Revolver Reloads

By EDWARD PAINE, M. D.

Why does one hear so many derogatory reports on the use of du Pont No. 80 in revolvers? I believe that one reason for it is that most people do not use enough powder. There is too much dead space left in the shell and you get poor ignition. I used a lot of it in my .38-40 with poor results in all loads up to 14 grains; poor ignition and a feeling of "hang fire." I did not increase the load above 14 grains, but switched to du Pont No. 3 and No. 5, which gave good results in the recommended load of nine grains no-hang fire, accuracy and velocity. I think I should have dismissed No. 80 from further tests if it had not been for some rather remarkable results two of my friends obtained in loading it in the .38 S. and W. Special.

They selected No. 80 principally because it was a bulk powder, and they thought it safer to load than dense, especially as they did not own an Ideal or Bond measure. They weighed the charge, put it in an empty shell, and filed down flush with the powder, quite as accurate for measuring powder of uniform granulation as a more complicated machine.

They started out with eight grains behind the regular Bond bullet of 160 grains weight. This gave as good if not better than factory ballistics—no hang fire, good accuracy and light recoil. They increased the load gradually to ten grains when they were stopped by signs of pressure. They

decided that nine grains was the optimum charge, this gave approximately three times the penetration of the factory charge. The recoil was not severe, and the accuracy was first class. The velocity must be around 1,100 feet, it seems to me about the same as the 30 caliber Luger. As far as I am concerned, this is the ideal load for the .38 S. & W. Special, in fact it gives the gun an entirely new rating. I had always looked upon the .38 S. & W. Special as a squib, and a squib it is with factory ammunition, but with this high speed stuff it is a different animal. I should expect it to closely approach the ballistics of the .38-40 when the .38-40 was loaded to do its best.

In putting together these high velocity loads, one thing cannot be too often pointed out, and that is that there are other factors to be watched besides weight of powder charge and bullet. The way the bullet seats and the amount of crimp are factors not to be overlooked.

I recently had a good illustration of this: I shot some Western wad cutter loads and turned the empty cases over to my friend for reloading, they were reloaded with nine grains of powder—a load ordinarily within the safety zone. I noticed after the first shot that the cylinder would not revolve, and it took quite a lot of tapping to open the gun. The primers showed pressure symptoms and the base of the shell was bulged out into the weak spot in the cylinder that the extractor does not entirely close.

I think the trouble was that the long Bond bullet had been forced down by the cannulure that had been put in to hold the short wad cutter bullet. This would hardly be expected to raise the pressure to a dangerous point but it did, and I was thankful I was not using a Spanish imitation. Reloading revolver cartridges is good sport and is the only way you can get anything like the ballistics the cartridges are capable of. No ammunition manufacturers are going to run the risk of blowing up a lot of junk guns, so they load for the weakest link in the chain.

GOOD BINOCULARS

I HAVE B. & L. Victory Model binoculars that I have been using on hunting trips; but would like to get a better glass at moderate price for hunting in the Western Rockies. Will you kindly suggest make, power, etc. of a good binocular for all around hunting. C. M., Horse Cave, Ky.

Answer (by Major Whelen). I do not believe that it is possible to get better medium priced binoculars than the B. & L. 6 power Victory glasses. That is a very satisfactory glass if in good condition. Often when they do not seem satisfactory all they need is cleaning by a skilled optician. It might be possible to obtain one of the following glasses second hand at a medium price. You might try advertising in THE AMERICAN RIFLEMAN.

In my opinion the following binoculars are among the best, if not the best, for big game hunting use. They are very markedly superior to the B. & L. Victory glass. They are rather large and heavy, and rather expensive. Like everything else, if you want optical efficiency you have to pay for it in increased size, weight, and price.

Zeiss "Binocular," 7-power; Goerz "Helinox," 7 power; Hensoldt "Marine Dialyt," 8 power; and Busch "Terlux," 10 power.

Also, please see my article, "Binoculars for Sportsmen," appearing in THE AMERICAN RIFLEMAN, Vol. LXXI, No. 9.

HiVel Wins in International Ammunition Tryout

NEW ACCURACY FIGURES for 300 METERS

With a figure of merit of 2.11 inches, Frankford Arsenal International Match ammunition shot the smallest groups ever fired at 300 meters in a public test during the tryout, at Aberdeen, Md., April 23 and 24. The 1925 Frankford International load consists of their new 172 grain, 9° boat-tail, gilding metal jacketed bullet and 37.6 grains of Hercules HiVel. The charge develops 2,200 foot seconds velocity, wonderful accuracy, and the piffling recoil of the .30-30.

Extensive preliminary tests at the Arsenal showed that 2,200 feet per second was the velocity which would give them the greatest accuracy at 300 meters and that HiVel was the powder which would give the smallest groups. Just how well the ammunition shoots may be gleaned from winning figures of previous years. Remington won with HiVel and a figure of merit of 2.19 in 1924, and with an average of 2.81 in 1923.

In the Palma test at 1,000 yards, Frankford won in a shoot-off after tying with a Remington-HiVel lot. High winds blew several bullets off the targets for various competitors necessitating a shoot-off in which the new speedy boat-tail bullet at 2,776 foot seconds velocity rode the wind to best advantage.

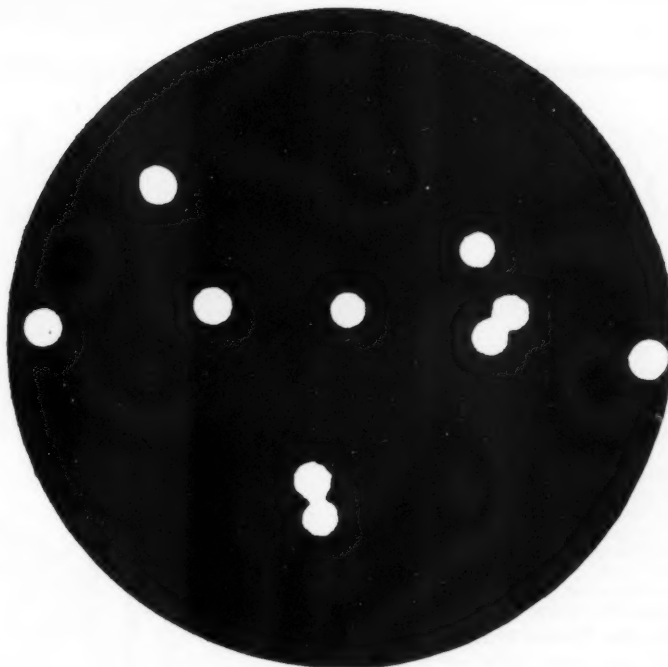
We congratulate the ballistic experts of Frankford upon their double victory and upon the persistence with which they have labored for years to reach their final goal.

HERCULES POWDER CO.

Wilmington, Delaware

**Preserve
This Advertisement**

This is the first of a series of advertisements giving detailed information regarding some of the more popular WESTERN game cartridges. The target at the right is an actual size reproduction of a typical group made with the Savage 250-3000 at 200 yards. The cartridge itself is illustrated below.



**Ammunition Dope
Free**

The more you know about your guns and ammunition the more you will enjoy their use. Write for any information you may want. The men who perfected Lubaloy non-fouling bullet jackets, Boat Tail and Open Point Expanding bullets, the 30-30 High Velocity, the 250-3000-100 gr. and other famous WESTERN developments, will be glad to help you solve any problems that may be troubling you. A postcard will do the trick.

250-3000-100 gr.—

The accuracy, high velocity and flat trajectory of the 250-3000 have made it one of the most popular of the light weight high velocity rifles. Its chief weakness lay in the fact that its little 87 grain soft nosed bullet was too short to give sufficient penetration for the larger game. Instead, it went to pieces quickly, spoiling a lot of meat and sometimes failing to kill.

The WESTERN 100 gr. Lubaloy Open Point Expanding bullet overcomes this difficulty and offers other advantages besides. The longer 100 gr. bullet gives deeper penetration while the Open Point Expanding construction assures clean kills because of its interior explosive effect. Being jacketed with Lubaloy, this bullet is free from metal fouling—an important consideration when planning a long hunting trip. The 250-3000-100 gr. is remarkably accurate as shown by the group illustrated above and at 2825 feet velocity has sufficient power for any except the heaviest American game. Ballistic data follows:

Bullet Weight—100 gr.	Vel. at 100 yds.—2549 ft. sec.
Type—Lubaloy O. P. E.	Muzzle Energy—1773 ft. lbs.
Ave. Bullet Diam.—.257 in.	Energy at 100 yds.—1445 ft. lbs.
Ave. Groove Diam. bore—.257 in.	Trajectory Height:
Rifling—1 turn in 14 in.	Midway of 100 yds.—.61 in.
Mean Breech Pressure—not over 50,000 lbs.	Midway of 200 yds.—2.30 in.
Ave. Group at 200 yds.—4 in. extreme spread.	Midway of 300 yds.—6.70 in.
Muzzle Vel.—2875 ft. seconds.	

Adapted to Savage lever action model 1899, and Savage bolt action model 1920.

WESTERN CARTRIDGE CO., 425 Broadway, East Alton, Ill.

Western

AMMUNITION

—for that K R A G of yours

The Lyman No. 48-K Micrometer Receiver Sight is used for hunting and target work. It is equipped with the Lyman Built-in-Turn down Peep, giving two sizes of aperture that cannot be lost and are instantly available, and is tapped and drilled to take the Lyman Target Disc. Adjustable by clicks to minutes of angle for elevation and to quarter points for windage. Price \$11.50, including Tap and Drill for mounting. Target Disc, 50c extra.

Similar sights for Springfield, 1903, 1906 and other rifles with Mauser type of bolt action.

Sights for Every Gun You Own

The Lyman Catalog shows sights for practically any gun you may own, American or foreign. Sent for 10 cents, coin or stamps. Folder, "Better Aim at Target or Game," sent free upon request.

The Lyman Gun Sight Corporation
90 West St., Middletown, Conn.

Use **LYMAN SIGHTS**



The New
No. 17
Target Front
Sight

Big Hood
Reversible
Aperture and
Metal Post

The Pope Matches

All Day—MAY 30, 1925—Open Matches

Conducted by the Roosevelt Rifle Club of New York—At outdoor range at Elmsford—Take train to either White Plains or Tarrytown, then trolley to Elmsford—Trolley passes the property of Scott Brothers, Nurserymen, where you get off—Range is 200 yards from trolley.

10 A. M.—THE POPE SMALL BORE—50, 100, 200 Yards. Any .22 r. f. rifle. Any sights. Position, prone. Extra fine Gold, Silver and Bronze Medals to first three places. Two Bronze Medals to first and second Tyros. Entrance fee, \$2.50.

2 P. M.—THE POPE PALMA—150, 175, 200 Yards. 15 shots each range. Any .22 r. f. rifle. Any sights. Position, prone. Extra fine Gold, Silver, and Bronze Medals to first three places. Bronze Medals to first and second Tyros. Entrance \$2.50.

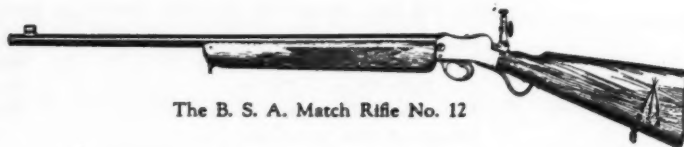
The Roosevelt Luck Medal will be given out in the afternoon match, winning score to be drawn from a hat—Both matches can be shot in the afternoon if a man is late.

J. W. Gillies
Walter Telsey
S. G. Tooker Executive Officers

Made by the Birmingham
Small Arms Co., Ltd.

The Name Guarantees
Quality and Accuracy

B. S. A. Twelve Superiority Insured by Fluid-Pressed Steel Barrel



The B. S. A. Match Rifle No. 12

The B. S. A. Match Rifle No. 12 is the most accurate .22 Match Rifle in the world. None but the finest materials employed, machined to minute limits of accuracy—fitted with the utmost care by highly skilled workmen. Jessop's special Fluid-Pressed Sheffield Steel barrel. Tough-bodied, durable steel. The B. S. A. Match Rifle retains its wonderful accuracy for thousands of rounds.

Shoot the B. S. A. Twelve to Win!

Send for latest descriptive literature on all B. S. A. Products.

Jonas B. Oglaend, Inc., U. S. A. Distributors

Dept. 19

15 Moore Street

New York

Canadian Representatives: Fraser Co., 286 St. James St., Montreal, Canada



WATSON No. 2 Target Sight



Disc No. 1



Disc No. 4



Disc No. 5

gives clearer definition in all lights than any other. Makes your target rifle an "all-round" rifle. By removing shade and using Discs 4 or 5 you have 22K. Gold or pure Silver Beads which are seen quickly in any light for game shooting. With shade on, beads show black. 5 sizes of beads. 10 sizes of apertures, changed in an instant, exactly centered. Ask us about Watson Rear Peep Sights and Eye Cups for other sights, absolutely the clearest apertures on the market today. Watson Sights insure high scores. Send for literature.

SIGHTS FOR ALL RIFLES

R. H. BETTS, GLENSIDE, PA.

Manufactured by

WATSON GUN SIGHT CO., TORONTO

COLT AUTO 45

List price \$36.75

My price **\$33.00**



"ALBERTSON"
OF LEWES, DEL.

Special—

Handtoned and finished, adjusted trigger pull, gold bead front sight and hand-full grips, **\$47.50**
No discount on loading tools.

Amateur Gunsmithing

by Maj. Townsend Whelen

The first of the National Rifle Association's handbooks for shooters and the only authoritative compilation of approved gunsmithing methods for the powder burner who remodels his weapons to suit his individual needs.

AMATEUR GUNSMITHING, since its appearance as a serial in *The American Rifleman* has been materially enlarged and elaborated. There are additional chapters, including discussions on repairs to revolvers, pistols and shotguns. An exhaustive appendix has been added containing special information upon methods of dismounting and assembling the mechanisms of the better known hunting and military arms, the removal of metal fouling, the making of sulphur casts and tables of barrel dimensions which will be found invaluable to the amateur gunsmith.

The volume is substantially but attractively bound in buckram, is adapted to ready and convenient reference, and contains 175 pages of real dope from a man who knows his stuff.

Price, Postpaid \$2.00

To Members of the National Rifle Association
A Discount of 25 Per Cent is Given

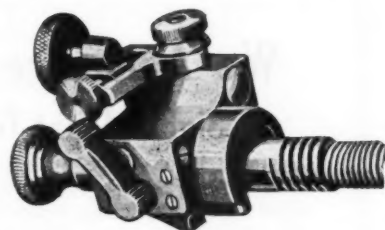
BOOK DEPARTMENT

The American Rifleman

1108 Woodward Bldg., Washington, D. C.



Howe-Whelen Bolt-sleeve Sight



A similar bolt-sleeve sight is being developed for Mauser actions

Brings Aperture

2½ Inches Nearer to Eye

**HOWE - WHELEN
BOLT-SLEEVE SIGHT**

PUT this rear sight on your .30-'06 Springfield and enjoy a superiority of sighting that will delight you every time you use it.

Integral with this sight is a new safety device and bolt lock which replaces the military lock. The new safety works forward and back on the right hand side and is silent, smooth and easy.

Elevation and windage adjustments are of micrometer type and furnished with clicks. Is easily mounted on any Springfield .30-'06 rifle (as issued) without cutting, gunsmithing or necessity of tools.

If you own a Springfield .30-'06, write for our circular "F" describing this sight, fully.

THE HOFFMAN ARMS COMPANY

1774 East 27th Street
CLEVELAND, OHIO

NEW YORK OFFICE: 100 East 42nd Street, New York City

Niedner Rifles Speak for Themselves



"The Niedner Rifle Corp., Dowagiac, Mich.

"Gentlemen,—

"The rifle stock has been safely returned, and I wish to say to your Mr. F. F. Shelhamer that I am more than pleased with the job of checkering that he did for me. It is *simply one fine job* and equal to checkering put upon guns valued in three figures. Evidently you people appreciate the advertising value of a satisfied customer. Thank you.

"Yours truly,

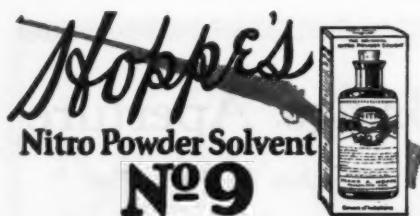
(Signed) "H. H. Raby."

The Niedner Rifle Corporation is prepared to fit gun stocks to the shooter, and to carve and ornament stocks as desired. Rifles and barrels, are furnished in all popular calibers. Write for what you want.

NIEDNER RIFLE CORPORATION

Dowagiac

Michigan



MAKES gun-cleaning a joy. Gets every speck of primer salt—all powder, soot and stain. Dissolves metal fouling and leading. Prevents rust, keeps up resale value. Send 10-cent stamp for sample.

Hoppe's Lubricating Oil for the working parts.

Ask your Dealer. Write us for free Guide.

FRANK A. HOPPE, Inc.

For more than 30 years the Authority on Gun Cleaning

2321 North 8th St., Philadelphia, Pa.

Shooting Accessories

Everything to interest a rifleman. Send for my No. 6 Catalog, just out, showing over 200 cuts and Complete Price List.

P. J. O'HARE

178 Littleton Ave., Newark, N. J.

IMPROVED BULLETS

Non-fouling-copper-cased Spitzer, unexcelled accuracy and shocking power. Send for descriptive circular.

WESTERN TOOL AND COPPER WORKS
Station G, Box 57, OAKLAND, CAL.

"You have the best light-weight bag on the market."—Dr. C. P. Fordyce.

FIALA PATENT SLEEPING BAG

Scientifically Correct

No dead air space to absorb moisture and odors. Every part can be sunned or washed. Weighs but 5 lbs.; warm as 30 lbs. of blankets. No hooks, strings or crude contraptions.

Write for circulars and prices.

Fiala High-Grade .22 Caliber Combination Rifle and Pistol, with 3 Barrels. A \$30 **\$18**

MIRAKEL 5x Prism Binoculars **\$22.50**
Genuine Jena; wt. 5 oz.; with case.

Camp, Touring or Expedition Equipment
Let us furnish estimates

We have recently outfitted 8 Exploring and Engineering Expeditions—Also the Roosevelt party.

ANTHONY FIALA
25 Warren St.
New York



We Announce a Perfected Scope Sight Mount for Bolt Action Rifles

Never before have owners of Springfield, Mauser, Winchester 52, Enfield 1917, Savage 1920 and other similar rifles been able to mount scope sights practically, except the very long target scopes.

At Last All You Have Wanted in a Scope Sight and Mount

It holds *hunting* scopes and target scopes of any length.

It locates the eyepiece back in correct position for any person, on any gun.

It has micrometer adjustment for zeroing the whole scope quickly, in both windage and elevation.

It detaches quickly, and replaces accurately. The mount is as strong and rigid as the gun itself—stronger than any scope tube.

It attaches to gun by means of one or two dovetail blocks *screwed rigidly* to the military rear sight base or to the barrel.

It locates the tube just as low as the action of rifle permits.

Or the scope can be located high enough to permit the use of open sights through beneath the tube if desired.

It is strictly American-made throughout even the lenses.

Quality of the entire B. & M. outfit is the world's best, in optical features, mechanical design and workmanship. Few indeed are the other scopes available which even compare in optical advantages.

This Improved Scope Sight Mount adjusts to single shot, lever action and slide action rifles as well as bolt actions. There is no longer any need to employ for hunting purposes the short German glasses and non-zeroing mounts, or any need to use for target purposes the inefficient long tubes solely as a base for ordinary mounts.

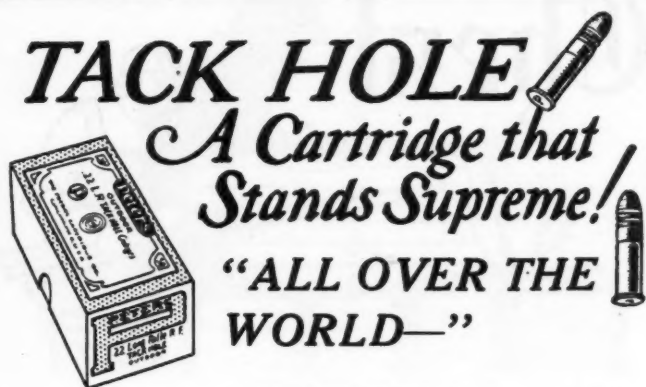
This superb Mount comes with B. & M. Hunting Scopes of fixed-focus, having wider field of view and more brilliant illumination than is found in any other scopes in the world.

It comes with B. & M. De Luxe Target Scopes of five, seven and nine power, that are wonderfully brilliant and wonderfully keen in definition. These are the Scopes—the only ones—which combine adjustment for eliminating parallax and for distance focusing *in movement of one element*. You can focus them in three minutes instead of three hours, and then you are more certain of having the adjustment right.

Folders describing the Improved B. & M. Scope Sight outfit are not yet printed. Write for photograph showing the type of scope you need on your kind of gun. We do the mounting, and we guarantee your satisfaction.

THESE MOUNTS AND SCOPES ARE NOT EXPERIMENTAL. THEY ARE IN PRODUCTION AND WE CAN GIVE YOU PROMPT SERVICE ON THEM.

820 Osceola Road **BELDING & MULL** Philipsburg, Penna.



"ALL OVER THE WORLD—"

WHEREVER there is competitive shooting and Peters Ammunition there is usually another Peters' win.

A report from South Africa states that Peters Ammunition has duplicated in that country its success elsewhere.

The "League Champions", the Van Ryn Deep Team, of Benoni, Transvaal, attribute their success largely to Peters Ammunition. Their captain writes as follows: "I've much pleasure in confirming your claims as to the quality of your ammunition. The Van Ryn Deep Team, of which I am Captain, has never looked back since using Peters Tack-Hole Cartridges. As you will see from the enclosed cuttings, we have established ourselves as League Champions for the year, which success is largely due to using your ammunition. The team also won the Riddler cup for making the greatest number of bull's-eyes. We have equalled the South African Miniature rifle record score of 800 points shooting against Rose Deep Club in a League Match. Individually I have the honor of registering the possible, i. e. 105."

Captain Bodley further writes: "These shoots are all outdoor competitions and are over the following distances: 50, 100 and 200 yards, and at 2 inch, 4 inch and 6 inch bulls respectively. Considering that the 303 Bisley Targets are the same size at 200 yards as the one used by us for your miniature rifle shooting, it speaks well for the accuracy and quality of your ammunition. I shall not hesitate to recommend it as the best ammunition in the market for small-bore shooting."

If Peters Ammunition wins everywhere else, it will certainly help YOU win. Ask your dealer or

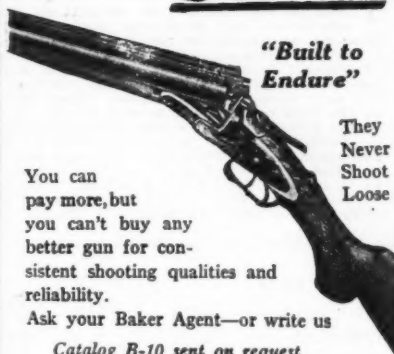
THE PETERS CARTRIDGE COMPANY

Dept. A-26
Cincinnati New York San Francisco

**PETERS
AMMUNITION**



Baker Guns



You can pay more, but you can't buy any better gun for consistent shooting qualities and reliability.

Ask your Baker Agent—or write us

Catalog B-10 sent on request

BAKER GUN CO. 283 Church St. New York, N.Y.



Patent applied for

RIFLEPAL

The new cleaning rod for rifles. Together and folded in a few seconds. No threads used. All brass. Simple, quick, reliable. Fitting cal. 7 mm. 30 and up. With brush and holder \$1.30. Ask for folder or send money order.

Rifelepal Manufacturing Company
245 Canal St., New York City

ALWAYS HAVE DRY MATCHES

Marble's Water-Proof Match Box keeps matches dry, holds enough for several days, absolutely waterproof. Made of seamless brass, size of 10 gauge shell.

Get at your dealers or send by mail, postpaid. Write for catalog of Marble's Sixty Specialties for Sportsmen.

MARBLE ARMS & MFG. CO.
502 Delta Avenue Gladstone, Michigan



Loading Tools

410 Brass Shot Shells. Also Pistol, Revolver and Rifle Cartridges.

Hand Book and Catalog, 10 Cents
MODERN-BOND CORP.

813 West 5th Street, Wilmington, Del.

The Arms Chest

TERMS

THE uniformly excellent returns from advertisements appearing in the classified columns of THE AMERICAN RIFLEMAN make it a most satisfactory and productive medium for the disposal of surplus shooting equipment, or the acquisition of special types of firearms.

Free Insertions. Each subscriber is entitled to one insertion of one-half inch, when his subscription is paid for one year. It is necessary only to write or print the text plainly, noting thereon the date subscription was paid. These advertisements will appear in the first available issue and should be in publication office two weeks prior to the following publication date.

Paid Insertions. Non-subscribers or those who have already made use of the subscriber's privilege may take advantage of these columns at a cost of \$1.00 per inch or part thereof. No advertisement for less than \$1.00 accepted. Advertisements will be set in 6 point solid. They should be in the publication office two weeks prior to the time appearance is desired.



E.S.

"FIREARMS OF YESTERDAY" are a specialty with **"THE OLD GEORGETOWN GUILD."** At all times there are on hand a large number of specimens from which to select examples of early American, Confederate States' and European firearms. Tell us what your collection needs. We will probably be able to help you. The Old Georgetown Guild, 2722 M. St., N.W., Washington, D.C. c

FOR SALE—8 mm. Mauser, slightly engraved, 24 inch perfect barrel, stock needs refinishing, otherwise good, checkered pistol grip, open sights with leaf, front bead on ramp, sliding swivels, cheek piece. .25-20 Winchester special stock with eccentric cheek piece, large fore-end, Kerr sling, Lyman 193 and globe front, half magazine, real target or vermin rifle. For sale or trade both for .250-3000 bolt with Lyman sights. John P. Struthers, 7052 Greenview Ave., Chicago, Illinois. 852

FOR SALE—Starr Civil War cap and ball revolver, in new condition, with bullet mold, screw driver and nipple wrench, 25 bullets, box of percussion caps, and the original printed instructions, \$7.50. You can have a lot of fun with this outfit at small cost. Major J. S. Hatcher, Frankford Arsenal, Braidesburg, Pa. 874

FOR SALE—25-20 Winchester take down 1892 Repeater, 24 inch octagon barrel. Nearly new condition. With 150 rounds factory ammunition, \$21.00. Or trade for A-1 Reising Auto. or Colt's P.P. 22 caliber. Send \$1.50 to cover express both ways. If rifle is accepted I pay charges. Proffitt's Bakery, North Salem, Indiana. 865

FOR SALE—22 long rifle. Ballard action double set triggers, Hart-Andrews barrel, fancy butt stock, barrel fitted with Winchester scope blocks, rifle in guncrank condition. Too heavy for me, reason for selling. \$60.00. I shot this rifle on N. R. A. Match No. 9, getting a score of 406-29 V. L. D. Vaughn, Thermopolis, Wyo. 855

EXCHANGE—A .30 1917 Enfield rifle, never fired, still in its own box. WANT a .45 gun and a case or two of .45 auto. ammunition. Or will trade for a typewriter of standard make, must be good, and a late model, Remington, Royal or Underwood. Pica type. Vere R. Evans, Lamoni, Iowa. 866

FOR SALE OR EXCHANGED—We buy, sell, or exchange all high class guns, rifles and revolvers. Write for what you want, or send what you have with a letter, and best offer will be made by return mail. L. Clark Deichler, 930 Marilyn Road, Phila., Pa. 853

WANTED—38 S&W. Special or Colt's Positive, 4 inch. **FOR SALE**—45 A.C.P. commercial, 2 barrels, one new, holster. Make offer. K. H. Munroe, 21 E. Holly St., Pasadena, Calif. 870

FOR SALE—Ithaca double, field grade, almost new, perfect, 28 inches, right cylinder, left full choke, 13 inch stock, 3/4 inch drop. First \$25.00 takes it. Dr. C. J. Moore, Bristol, Connecticut. 871

WANTED—Springfield bolt and receiver, Springfield action in good condition or complete rifle. Condition of barrel no object. L. E. Wilson, Pashastin, Washington. 854

WANTED—25-35 Single shot target rifle with telescope. Must be A-1 in every respect. H. A. Lowe, 1874 E. 66th St., Cleveland, O. 869

FOR SALE—Two Lyman 48 sights for Springfield. Adjusted to one-half minute clicks. \$9.50 each. Arthur Strode, 2311 Grant St., Vancouver, Washington. 872

FOR SALE—Specially made military Model .38 S. & W. special, fluted straps and trigger, new \$35.00. European free pistol .22 cal. 14 inch barrel, set trigger, \$35.00. I. N. Wagner, 249 Custer Ave., Youngstown, Ohio. 881

FOR SALE OR EXCHANGE—21 Jewel Sangamo Special Movement in 25 year Dust Proof, Wadsworth gold filled case, fine timekeeper, adjusted to six positions, cost \$82.50. Would exchange for high grade gun. M. M. Conlon, 608 Old Nat'l Bank Bldg., Spokane, Wash. 867

FOR SALE OR TRADE—Marlin 92 Model, .32 caliber. Target revolver, .22 caliber, 6 inch barrel. Both guns in good shape. **WANTED**—Winchester Carbine, 94 Model, .38-55 caliber. Colt's S. A. or New Service .44-40. Colt's or Reising Automatic .22 caliber shotgun, 20 gauge. Must be in first class shape. S. J. Churchill, Biggsville, Illinois. 863

FOR SALE—S. & W. .32, 4 1/4 inch barrel, Police Model, square butt, absolutely new, \$20.00. One Colt's .32 4 inch barrel, police positive, new condition, \$19.50. S. & W. .38, 6 inch barrel, square butt, new condition, \$24.50. One Marlin shotgun pump, 20 gauge, 30 inch barrel, absolutely new, \$30.00. Field Glass 30 power, good for target practice, \$9.50. Colt's Automatic 25 cal., \$11.00. Savage Automatic .32 Cal., \$12.50. Hunting coats, size 36, brand new, \$3.50. Samuel Kates, 2000 South St., Phila., Pa. 861

FOR SALE OR TRADE—One Ottway Spotting Scope. 20-X, open 16 1/2 inches, closed 6 inches. One Stevens 468 scope and mounts and mounts complete, bluing worn, length 13 1/2 inch. Cross wire reticule. One Blascope 6-X, used but in fine condition. Several used over and under trap and field guns. **WANT**—Postcard size Graflex Camera, complete, single and double full choke, trap guns, also full choke pump guns. Wm. F. Smith, 5619 North 4th St., Philadelphia, Pennsylvania. 861

FOR SALE—New Remington, Model 10-D Special Grade Shotgun. 12 gauge, full, 30 inch, solid rib. Beautiful Circassian stock and fore-end. Leather case. Been shot sixteen times and hasn't a scratch. Cost \$114.60. First money order for \$75.00 takes it. Also a Savage Bolt Action .250-3000, fitted with Lyman 54, shot only few times and cannot be told from new, canvas case. First \$40.00 takes it. Both guns are perfect and rare bargains. I am a musician and have no use for either gun at present, hence the sacrifice. Take my advice and act quick. D. R. Luper, Westport Apts., 119 W. Ray St., Seattle, Washington. 862

FOR SALE—Austrian Steyr 9 mm. automatic, very good condition, \$16.00. .35 S. & W. Auto., very good condition, \$18.50. .32 Savage Auto., old model, good serviceable order, \$10.00. .32 H&R. Auto., like new, \$13.00. .32 Rim Fire H&R. revolver, 6 inch barrel, large grips, like new, \$8.00. .32 cal. H&R. "Trapper" Model 7 shot revolver, 6 inch barrel, large target grips, like new, \$7.00. .22 caliber H&R. "Hunter" model 7 shot revolver, 10 inch barrel, large target grips, like new, \$8.00. Collection of 200 ancient and modern cartridges, \$8.00. Ideal Mold No. 37576-355 grains (.38-55 M) fine order, \$1.60. Bond dipper 30 cents. Army cartridge belts, 30-66, 75 cents. Transportation extra. B. K. Wingate, R-2, Reading, Pa. 860

FOR SALE—9 mm. Luger pistol, 4 inch barrel, good condition, \$18.00; 9 mm. Luger pistol, 6 inch barrel, adjustable rear sight, new condition inside and out, \$30.00; .45 Colt auto. pistol, commercial gun, fine condition, special barrel and action, \$20.00. .22 S. & W. pistol, 10 inch Olympic barrel, new condition, \$20.00; .22 Colt revolver, 6 inch barrel, target sights, finely engraved, new, \$50.00. .45 Colt S. A. revolver 4 1/4 inch barrel, silver plated, good condition, \$15.00. W. L. Darling, 464 Huntington Ave., Boston, Mass. 877

SHIFT WITH THE HOUSE OF SHIFF THE GUNMAN, N. Woodstock, N. H. This is our 54th year, and best. I have never shipped a gun I did not personally back EXCEPT NEW, DIRECT to your order. I never carry because they are cheap but only because they are RIGHT. One charge. One price to ALL. If you have not shipped your stamp, if you are not fighting fanatics, if we have to smuggle our guns as you do a drink THEN SHIFF'S NEW YEAR'S MESSAGE TO YOU is that it serves YOU WELL AND RIGHT. L

SELL ONLY—Krag rifle, shortened for arm, very good, \$10.00. .22 Colt's Police Positive Target Revolver, 6 inch, barrel new, \$25.00. Winchester Model 1906 .22 rifle, fine inside, worn outside, Lyman peep, \$12.00. .45 Colt auto. Model, 1911 barrel, good, rest fine, \$20.00. Commercial made, also Colt .45 auto. Model 1917 revolver, good shape, \$12.00. Jesse Hartzell, Route 5, Grinnell, Iowa. 873

FOR SALE—Brand new Colt .45 New Service 7 1/4 inch barrel, never shot, \$25.00. Brand new Remington model 25, .32-20, \$30.00. Some perfect, new condition. Winchester Model 90 .22 W.R.F. at \$20.00 each. Some perfect new condition .32 Colt auto. pistols at \$16.00 each. Krag sporter, fine condition, \$8.00. George A. Goekke, 15 East Main St., Waukon, Iowa. 905

WANTED—Patterson, Dragoon and Bisley Colts. Kentucky Flint Rifles. North Berlin, North and Chaney, Richmond and Harper Ferry Pistols. Wesson 1855 .22 cal. revolvers. Specify in detail, cal., length of barrels and condition. S. H. Croft, 33rd & Market Sts., Phila., Pa. 8

FOR SALE—New and slightly used Graflex, kodaks, lenses, binoculars, telescopes Zeiss, Goerz, Hensoldt, Busch, reasonably priced, good firmans taken in trade. National Camera Exchange, 29 so. 5th St., Minneapolis, Minn. N

We have fought the fanatics to draw this round. Let us prepare for an intelligent offensive NOW. Ship your stamp and **SHIFT WITH THE HOUSE OF SHIFF THE GUNMAN**. North Woodstock, New Hampshire. K

FOR SALE—One .45-90, 1886, one .30-30, 1894 Winchester. Both 26 inch octagon, both absolutely perfect inside and very fine outside. \$20.00 each. R. C. Skaggs, Box 885, Prescott, Arizona. 875

.250 SAVAGE BOLT, Lyman receiver, sling, new, cost \$57.50, sell \$40.00. Wesson & Harrington .32 cal. rod ejection, fine, \$3.00. Harold Peterson, 56 Central Ave., East Providence, R. I. 876

WANTED—Winchester 5-A or Feccker 6-X Scope with mounts. Must be in crank condition and cheap for cash. C. T. Giberson, Box 575, Winter Haven, Florida. 873

MAKE YOUR old guns like new with new method gun bluer, large size can, enough for five guns postpaid for \$1.00. New Method Gun Company, Dept. Z-4, Bradford, Pa. 0



M

st
V

de
15

re
9

bl
O

co
n
F

d
n
S
K

p
a
V
c
A

r
S
S
n
S

c
t
l
c
R

l
n
R
.

c
a
C
I
O

z
a
S
C
n
S

l
.
l
y
n
.

l
.
l
y
n
.

l
.
l
y
n
.

l
.
l
y
n
.

l
.
l
y
n
.

l
.
l
y
n
.

FOR SALE—One Model 414 Stevens rifle for shorts only. Perfect condition, \$14.00. M. J. Vreeland, 615 Krause St., Ann Arbor, Mich. 893

SELL—30-30 reloading tool, Ideal and Bond double cavity mold, \$8.00, bargain. Jos. Stegle, 1982 Bathgate Ave., Bronx, New York City 889

WANTED—38 S. & W. Special bullet mold, reloading tool, and powder scale. W. A. Panosh, 915 N. 15th St., Manitowoc, Wis. 888

FOR SALE—Savage Sporter .25-20; sights, blade front, peep rear, perfect condition, \$23.00. Oswald Lewis, East Windsor Hill, Conn. 887

FOR SALE—32-40 Winchester Schuetzen, complete in every detail, factory condition, never been fired, \$50.00. Norman Bedihon, 502 Fourth St., Corning, California. 886

TRADE—\$25.00 Eastman Kodak, new condition. **WANT**—32-20 Savage Sporter, Crossman air rifle, 38-40 carbine, 38 Police Positive Special, or best offer. R. D. McCaslin, Centralia, Kansas. 892

FOR SALE OR TRADE—22 S. & W. 10 inch pistol, Patridge sights, perfect condition inside and out, and new Heisser holster, \$24.00. **WANT**—Remington .22 S. P. pistol in good condition. Edward Armitage, 1234 Wagner Ave., Logan, Phila., Pa. 890

FOR SALE—Krag, pistol grip stock, Jostam recoil pad, gold bead front, 1400 cts., \$30.00. Stevens double, hammer, 12 ga., like new, \$17.00. S. & W. 38 special adjustable rear sight, like new, \$25.00. A. J. Yearsley, 715 S. Downing St., Piqua, Ohio. 882

TRADE—351 Winchester auto. rifle, A-1 condition, bluing slightly worn off receiver, two magazines, about 100 cartridges, Lyman ivory bead, leather case. Will trade for new or A-1 Springfield Sporter as sold by N.R.A. F. E. Watson, Tipton, Indiana. 885

FOR SALE—Ithaca field 12-30 full, sole leather case, \$20.00. 10 ga. Winchester, like new, outside, leather case, \$26.00. 22 Savage Hi Power, Marble's sights, perfect, \$26.00. 45-70 Burgess repeating rifle, \$10.00. Ballard 44 R. F., \$5.00. 32-20 Colt's S. A. 4 1/2 inch, \$15.00. Oluf Bearrood, R. 2, Luck, Wis. 883

FOR SALE—Parker G. grade, 28 ga., fine condition, \$40.00. L. C. Smith long range Duck gun, Jastan pad, 32 inch barrel, 8 1/2. Factory condition. 150 3-inch Super X shells, \$50.00. This gun will average over 80 per cent. Dr. Leon W. Tieman, 514-19 Ill. State Bk. Bldg., Quincy, Illinois. 897

FOR SALE OR TRADE—One Marlin 30-30, 26 inches, new barrel, Marble flexible real sight and 40 cartridges, \$25.00. One Stevens Model 330, 12 ga., 28 in. barrels, new condition, \$20.00. One Ideal reloading set, caliber 50-70, new, never used, \$4.00. **WANT**—Springfield 1903 and reloading set for same. Wm. Tompkins, Box 26, Cooks Falls, N. Y. 891

WILL TRADE the following articles for Bond or Ideal lubricator and sizer with dies for 30 caliber rifle and .45 caliber Colt, also 30-06 parts for Bond reloading tool. **FOR TRADE**—1918 Luger pistol, 8 inch barrel, holster and wooden stock, 44-40 Winchester reloading tool with mold; 45 caliber round ball Frankford Arsenal mold; 45 automatic parts for Bond reloading tool. H. L. Gau, 4703 Hartford Road, Hamilton P. O., Baltimore, Md. 889

FOR SALE OR TRADE—The Parker ejector, 16 ga. in factory condition, purchased for last hunting season, stock 1 1/2 x 2 1/2 x 14. 30 in. bbls., bored 180 pellets right 220 left with extra set of quail bbls., 26 inch bored, 154 right and 200 left, cost with fine case, \$275, and will take \$225.00. Will sell with either set of bbl. or sell either bbl. or will trade for higher grade in same condition of equal value. CE Fox ejector 12 ga., 30 inch full, in factory condition, \$85.00. Dunlap Roddey, Rock Hill, South Carolina. 884

WANTED—Old gun catalogues around 1900 and before. **FOR SALE**—Winchester Catalogues 1907 and 1908, 75 cents each. Ideal Hand Books, \$1.00 each. "Shooting, Its Appliances, Practices and Purpose." J. D. Dougall, London, 1875, \$2.60. "The Shooter's Companion," T. B. Johnson, London, 1830, \$2.60. "Field Cover and Trap Shooting," A. H. B. Gardner, \$1.50. "Notes on Sporting Rifles" London 1920, 75 cents. Ideal Tools 25-25, S.S., \$2.50. Bullet mold, round ball about 16 gauge, 75 cents. Remington military rifle 50-70. Shooting order, but rusty, \$2.50. Ballard repeating rifle, cal. 38-45. Out of order, \$7.00. Round lead balls to fit the Colt and Remington 44 Percussion revolvers, 75 cents per 100. Percussion cap, \$1.00 per 1,000. Fred Wainwright, Grayling, Michigan. 879

FOR SALE—The following articles are exactly as represented, no mistake will be made in their purchase and each is an honest bargain. Terms are Postal Money Order in advance. Carrying charges will be prepaid but no shipments on approval: One new Colt's single action Army Model, 44 S. & W. Special, 5 1/2 inch barrel. Especially selected and assembled for me at factory with match grade barrel, hand-finished action, rear strap checked, genuine Staghorn grips, and whole arm handsomely engraved. This revolver is of target quality and particularly accurate and in brand new shape throughout. Cost, \$74.00—sell \$50.00. Heiser carved holster and belt (without loops) goes with it. One genuine Carl Zeiss "Dekar" Model 10 x 50 Prism Binocular. A remarkable glass, combining high power with great light gathering capacity, comfortable in the hands, and suitable for all sorts of weather conditions. Particularly selected when bought and the same as new. Case and Zeiss mount for use on a Camera tripod. Cost complete \$129.00, sell \$80.00. One used Blisley Model Colt, 44 S. & W. Special, 4 1/2 inch barrel with gold bead sight set into base of original. This arm shows use on exterior of cylinder and barrel but is fine inside. Smoothed action, \$18.00. R. D. Talmage, East Hampton, N. Y. 899

FOR SALE—Lee-Speed rifle made by the Birmingham Small Arms Co., cal. .303 British 24 inch barrel, checked pistol grip and fore arm bolt action, removable box magazine, checked trigger. Engraved receiver and butt plate. Barrel, action, and finish perfect. \$65.00. Newton 30 cal. Newton 24 inch barrel. Double set triggers, checked pistol grip and fore arm. Factory new condition, \$60.00. Luger 9 mm. 8 1/2 inch barrel, 35 shot drum magazine with loading tool for same. Holster with cleaning rod and screw driver in pockets. Barrel stamped 1917. \$37.50. Austrian Steyr 9 mm. automatic pistol 4 1/2 inch barrel 8 shot magazine, \$25.00. Colt .455 Elley New Service 4 1/2 inch barrel, blued \$18.50. Colt 22 long rifle Police Positive target revolver, \$24.50. Colt .38 cal. Pocket Model automatic pistol, new condition, \$27.50. Smith & Wesson target pistol, 8 inch barrel, bluing slightly worn, \$21.00. Colt S.A.A. 38-40, 5 1/2 inch barrel, nicked finish, fine condition, \$18.50. Colt .32 cal. Pocket Automatic, new condition, \$14.00. Collection of flint and percussion pistols and revolvers. Send for list. W. S. Lutz, 8 So. 18th St., Philadelphia, Pa. 895

FOR SALE—One S.S. Springfield, converted to 28 gauge shotgun, \$7.50; Fairbank's Miners Assay powder scales, \$6.00; Colt Derringer, ivory grips, new condition, \$12.00; Ideal No. 5 powder measure, \$4.00; 30-30 Ideal tool mold attached, adjustable chamber, \$3.00; Ideal molds No. 308, 378, 329, \$1.50 each Winchester molds 32-40 regular, 38 long Colt, \$1.25 each; Diamond Model Stevens 6 inch for 22 short, \$12.00; Stevens 10 inch pocket rifle 22 L. R. peep rear, globe combination front, checked grips, etc., \$18.00; both above perfect bores, many extras and holsters; 22 short model 73 Winchester, \$12.00; Ideal lubricator and sizer .38 Special dies, \$5.00; Ideal Re and De Capper for .38 Special, \$2.00; 4 inch barrel only S. A. Colt for 44 Special, \$3.00. Morgan Van Matre, 1502 Union Trust Bldg., Cincinnati, Ohio. 903

FOR SALE—Fancy engraved Ballard Niedner 22, 27 inch No. 3, new barrel, poor stock, otherwise beautiful, has full finger lever, \$35.00. Winchester A-5 Scope, without mounts, \$16.00. Colt Officers Model, 6 inch, nearly new, \$24.00. Springfield bolt and receiver, new, \$9.00. J. A. Wade, Box 493, Sheridan, Wyoming. 906

FOR SALE OR TRADE—100 T. M. P. 101 ga. 25 cal. Snitzer bullets. Also ARMS AND THE MAN and AMERICAN RIFLEMAN for 1922, 1923, 1924. A few copies missing. **WANT**—30 cal. bullets, 22 L. R. cartridges and Krag 30 inch barrel. Roscoe C. Bunting, Cambridge Springs, Penna. 904

FOR SALE—One Marlin pump shotgun, 20 gauge, good shape, \$20.00. One diamond ring, perfect weighs four and sixty three one hundredths, in white gold, man's mounting, barest at \$195.00 cash. A. E. Pellerin, 114 W. Main St., Denison, Texas. 902

WANTED—Ideal No. 3 reloading tools for .38 S. & W. Special cartridge. Also No. 10 tool for 30-06 cartridge, and old Ideal bullet molds of 32, 20 and smaller. Powder Measures, etc. H. B. Check, 842 Herkimer St., Pasadena, Calif. 898

FOR SALE—Choice collection of modern rifles, practically brand new, at one half cost. Write Sidney Maranov, Rm. 705, 305 Broadway, New York City. 901

FOR SALE—Almost new 7 mm. Griffin & Howe rifle, Lyman No. 48, gold bead front on long ramp; \$125.00. Dr. G. R. Hays, Richmond, Indiana. 894

WANTED—50 clips for the 7.62 mm. Russian cartridge. State price and shipping weight. Wm. C. Bethe, 897 Buffum St., Milwaukee, Wisconsin. 909

FOR SALE—Case of 1,000 Krag cases, unprimed, Frankford Arsenal new. First P. O. order for \$10.50 takes them. F. C. Harmon, 2 Weston St., Towanda, Pa. 913

WANTED—Five Russian rifles, cal. 7.62 mm. State price and condition. Also trade Model '17 Sporter, cal. 30-06, for Fecker or Winchester scope. Henry F. Zinner, Middleburgh, Scho. Co., N. Y. 915

FOR SALE—Colt magazine rifle. Pat. 1883, cal. 40-60-260. Fine order, \$25.00. Butterfield Civil War revolver, \$12.00. Iver Johnson 410 ga., new, \$5.00. 200 bullet molds, 50 cents each. Carpenter, Box 332, Lancaster, Pa. 917

FOR SALE—Remington .30 cal. Model 14 rifle and one box 170 gr. S. P. cartridges. Rifle is new, never fired, slide action. \$38.00 prepaid express. D. V. Fette, R. R. No. 1, Hannibal, Missouri. 896

FOR SALE—One Russian rifle, cal. 7.62, shot 40 times. 100 U. S. cartridges. 1,000 F. A. primers. Squib Miller mold (made by Belding & Mull). All for \$16.00. Lloyd Muller, 4314 E. 15th St., Kansas City, Mo. 900

TRADE—Model 1881 Marlin, caliber .45-70, open top ejection, 28 inch barrel, stamped J. M. Marlin, No. 37, in good shooting condition. What have you? A. L. Walde, The Pioneer State Bank, Denver, Colo. 908

FOR SALE—30-06 Springfield, pistol grip stock, new type, long fore-end, Lyman 48 sight, fine shape, extra service stock, as issued, \$35.00. No trades. Powder scales, \$3.00. H. R. Maxfield, The Gateway, New Hartford, Conn. 911

I WANT a 50-100-450 Model 86 Winchester in good condition. Rifle revolver, shotgun or cash; half magazine preferred, also loading tools. Am finished with high power small bore nonsense for hunting. F. V. Allen, Cross River, Westchester Co., N. Y. 912

FOR SALE OR TRADE—100 F.M.P. 101 gr. 25 cal. Snitzer bullets, also ARMS AND THE MAN and AMERICAN RIFLEMAN for 1922, 1923, 1924, a few copies missing. **WANT**—30 cal. bullets, 22 L. R. cartridges and Krag 30 in. barrel. Roscoe C. Bunting, Cambridge Springs, Pa. 911

EXCHANGE—Complete files ARMS AND THE MAN from 1910 to 1924, inclusive, in clean home-bound volumes. Exchange for good rifle or revolver or best offer. Lyman No. 103 peep, \$3.00. Lyman peep for .22 automatic rifle, \$2.00. Burnside carbine, good condition, \$5.00. Service stock for Springfield, \$2.00. Dr. Lincoln Riley, Wisner, Nebraska. 910

FOR SALE OR TRADE—Ithaca 12-30, fine, \$25.00. Winchester 32 auto. Model 1905, good, \$25.00. Marlin 30-30, good, \$15.00. Remington .32 pump, fine, \$30.00. Winchester 30-03-06 carbine, Model '95, good, \$25.00. Winchester .32-40 a.s. target sights, very accurate, good, \$25.00. **WANT**—20 ga. Remington or dbl.; 22 Springfield; '06 Springfield; 35 Remington auto. or pump; 22 Colts; A-5 scope and mounts; chamber and mold for .45 Colts. T. W. Hildemann, Austin, Montana. 907

FOR SALE—Cash only at these prices. Winchester Model 86, half magazine take-down, .33 cal., fancy grade unusually beautiful stock and fore-end finely checkered, round barrel, 24 in., gold bead front and Lyman receiver rear sights, Jostam pad, absolutely perfect, new condition inside and out, a \$110.00 job for \$60.00. Winchester-Hoffman .32-20 take-down half magazine, 24 inch round barrel with Hoffman front sight ivory bead, folding leaf and marble peep rear sights, fancy stock and fore-end finely checkered, weight 6 1/2, remodeled and barrel tapered down by Hoffman, a beautiful gun in perfect new condition, balance perfect, cost \$110.00, sell for \$65.00. Brand new Savage 300 bolt, never shot, perfect as from factory, \$38.00. Brand new Remington auto. shotgun, trap grade plain barrel 28 inch full choke, \$75.00. Perfect, new condition, Winchester 1912-12 ga., 30 inch full choke ribbed barrel, \$48.00. Fine condition. Winchester .351 35.00. Winchester 95 .303 British carbine, good condition, \$18.00. Winchester 95 .30-40, fine condition, 24 inch barrel with Sheard front and Lyman receiver rear sights, \$33.00. Winchester 95 .30-06 24 inch barrel, Marble gold bead front and Lyman receiver rear sights, perfect condition, \$37.00. Winchester 95 .30-06 Musket, fine condition, with Lyman receiver rear sight, \$30.00. Winchester 94 .30-30 26 inch round barrel, fine condition, \$20.00. Same with half octagon barrel pistol grip stock, stock and fore-end checkered, very fine condition, \$25.00. Geo. A. Goeke, 15 E. Main St., Waukom, Iowa

FOR SALE—22 cal. 7-shot H&R revolver, 10-inch barrel, large target grips, like new, \$3.00. H&R .32 cal. auto. pistol, like new, \$12.00. H&R .32 cal. rimfire 5-shot revolver, 6 inch barrel, large walnut grips, like new, \$7.50. Collection of 200 ancient and modern cartridges, all different, \$3.50. Ideal powder measure No. 5, like new, \$1.25. Ideal 3-ball mould No. 308274-195 gra., very good, \$5.00. 100 rounds cal. .38-90 express cartridges for the Winchester S.S. rifle, \$6.00. 100 rounds cal. .450 Holland cartridges, black powder, lead bullet, \$7.00. 100 rounds cal. .450-400 Eley cartridges, smokeless, soft point bullet, \$8.00. Frankford Arsenal priming press, for .45 cal. rifle cartridges. If fitted with extra bushings can be used for any cartridge \$4.50. F.A. cal. 50-70 resizing die, \$1.25. F.A. 4-ball (round) mould, perfect, \$4.50. .35 cal. H&R auto. pistol, used, \$7.50. .44 S&W Russ. revolver, 7-inch barrel, used, \$16.00. Transportation extra. **WANTED**—Ideal powder measure No. 6. B. K. Wingate, R-2, Reading, Pa. 918

FOR SALE—New .405 Model 95 Winchester, 300 rounds of Western soft point lubaloy bullet ammunition, \$65.00. New 250-3000 Model 1920 Savage, 50 cartridges, some empties new. Ideal D. A. tool with muzzle size and bullet sizing chamber. \$5 gra. Ideal gas check mould. Several hundred gas checks, \$55.00. New 410 Model 330 Stevens D.B. shotguns, two boxes shells, \$25.00. New .22-32 S. & W. target revolver, patridge sights, in factory box, large target grip, \$28.50. All the above guns are new, just like they came from factory. Will take in trade on any of the guns an Officer's Model Colt's .38 Special 7 1/4 inch barrel. Must be in perfect condition inside and out. Any of the above guns shipped C.O.D. subject to examination on receipt of \$5.00. Harry Davidson, Box 76, New Franklin, Missouri. 929

FOR SALE—Griffin & Howe sporter, straight walnut stock, flat checkered, full pistol grip, horn cap, Whelen swivel and sling. Springfield barrel 22 inches, matted front sight ramp and gold bead. Springfield action, checkered bolt handle, fixed rear aperture sight. Brand new in factory grease. Cleaning tube with it. Cost \$145.00—will sell \$125.00 prepaid. J. M. Hillborn, 2710 Sedwick Ave., New York City. 920

FOR SALE—Cal. .22 Springfield in "gun crank" shape and very accurate. Grip and forearm never-slip, coarse, diamond check; durable striker rod in bolt to quicken lock time; tapped for scope bases; stock hand polished oil finish; extra aperture front sight, \$49. Frank Ellwell, 14 Irvington Ave., Dayton, Ohio. 925

FOR SALE OR TRADE—Colt's Army Special .38 cal., 6 inch bbl., practically new, fired only 13 times, \$25.00. Or will take in exchange S. & W. .22 perfected target pistol, 10 inch bbl., patridge sights. Must be perfect inside and out. J. F. Piazza, Ruxton, Inc., 247 Water St., Brooklyn, N. Y. 916

FOR SALE—45 cal. auto. pistol, inside perfect, outside a trifle holster worn, belt, holster and four extra clips, all for \$22.00. One .30 cal. Ideal bullet mould No. 308334 .30 U.S.G. One .203 Savage or .30-40 short range mould No. 30810 for \$1.00 each. M. M. Clarabut, 733 North James St., Rome, Pa. 923

FOR SALE—Springfield N.R.A. Sporter, star-gauged, No. 48 sight and steel rod. Slightly pitted at muzzle, otherwise excellent, \$40.00. Money order only. **WANT** D. C. M. silencer for Model 1903 rifle. Describe fully. Geo. Gierl Wildwood, Pa. 914

FOR SALE—One Colt S. A. Army .44-40, 5 1/4 inch bbl. Blued finish checked walnut stocks with Heiser's hand carved quick draw holster. Brand new \$40.00. One set Bond Loading Tools, .32-20, Model B, \$3.00, new. A. L. Bowker, Wentworth Location, New Hampshire. 928

FOR SALE—Bisley .44 S. & W. Special, 7 1/4 inch target barrel, extras; 3/4 inch barrel, gold bead sight, walnut grips, and .44-40 interchangeable cylinder, \$65.00. This is an outfit De Luxe, perfect in every way except bluing on extra cylinder. C. R. Ripley, Dennison, O. 922

MAKE YOUR OLD GUNS LIKE NEW with marvelous new method gun bluer easily applied with a brush, no heating is necessary. Enough to blue five guns in ten minutes for a dollar, postpaid. New Method Gun Bluing Co., Dept. Z-5, Bradford, Pa. 924

FOR SALE—Beautiful fancy engraved Single Action Colt, cal. .45, 4 1/4 in. bbl., full nickel finish, with carved pearl handles, fine outside, good inside, \$35.00—no trades. Wm. Rolston, 1987 Buena Vista, Detroit, Mich. 919

FOR SALE—Remodeled Russian, 24 inch, weight 7 1/2 lbs., sporting sights, 60 ctgs. \$8.00, C.O.D. New brandes fone \$4.00. All subject examination if desired. C. M. Morse, Tilden, Nebraska. 927

FOR SALE—Colt .38 Army Special, 5 inch barrel, brand new, \$25.00. J. Raymond Lenny, 2811 W. Oxford St., Philadelphia, Pa. 921

FOR SALE—Heavy barrel Springfield Match rifle, in new condition. 2 heavy Ballard Schuetzen rifles .38-55, 1 heavy Ballard .22 short, all with fine set triggers. Wm. Happe, 526 Jane St., West Hoboken, N. J. 943

WANTED—A partner or a pard. Some one who can back my experience with their capital. Six thousand dollars is required. This will secure a half interest in a business now netting about \$5,000 per year and which can be doubled. Located in game country where you may combine business and pleasure. Address Box 27, THE AMERICAN RIFLEMAN. 941

TRADE—25-20 Savage Sporter Marble sighted. Inside perfect, outside good. **WANT** .32-20 Remington Pump or Winchester Carbine or .32-20 Smith & Wesson with target sights. Also have a heavy barreled .25-20 Stevens and .30-30 Winchester with 22 inch barrel and half magazines. Condition only fair. For best offer. H. S. Hughes, Richmond, Missouri. 930

FOR SALE—Winchester S. S. rifle, new 28-inch round barrel, never fired, action and stock A-1, weight 6 lbs., .38 W.C.F., \$14.00. Stevens Ideal .32-40, fine, 70 cartridges, \$12.50. Colt police pocket, 3 1/4 inch, 32 long, fine, \$12.50. Colt Bisley, .45, line new, \$28.00. Colt Bisley, .38-40, finest condition, \$26.00. Transportation extra. Louis Evans, Route 7, Phoenix, Ariz. 932

FOR SALE—About half wholesale price. 330 rounds 50-110-300 metal patch, soft nose, high velocity, \$15.00 lot. 140 rounds 50-100-450 metal patch, soft nose, smokeless, \$7.00 lot. 50-110-300 low power smokeless, metal patch, hollow point express, \$4.00 per 100, \$35.00 per 1,000. All above bright, clean, Winchester make, in original boxes, F.O.B. Denver. Cash with order. Chauncey Thomas, Rm. 38 1627 Lawrence St., Denver, Colo. 925

WANTED—Best offer for the following: Stevens .28-30 Schuetzen rifle. Nickel steel barrel with attached scope blocks, double set triggers, engraved receiver. Forearm and cheek piece stock are of select dull-finished walnut, neatly checked. Has Swiss butt plate and palm rest. Detachable Stevens scope with good field and fine definition. Peep sight on grip, six different apertures. Also Re and Decapper bullet seater, bullet mould combined reamer and indenter. A number of sized and lubricated bullets, primers, twenty-five empties. Separate limp leather cases for rifle and scope. Rifle in gun crank condition and very accurate. Ross D. Howard, 216 E. Mt. Ave., Ft. Collins, Colo. 942

FOR SALE—16 ga. by 25-35 Hi-Speed hammerless three barrel gun, Anson Decey treble grip action with Purdey side clips, indicators, automatic rear sight, for rifle barrel, which is cocked with shot barrels on opening, fore end and grip fancy checkered, sling strap but no cheek piece, elaborately engraved with game scenes, special extractor for rifle barrel pushing rifle cartridges past shot shells, rt. barrel is mod., and left gives over 30 per cent. very close grouping for rifle barrel, brand new and a bargain, \$135.00. R. H. Lanferman, 7063 Greenview Ave., Chicago, Ill. 921

FOR SALE—Collectors specimens Sharps Rifles. 45-75 "Old Reliable," heavy round tapered barrel 28 inches, fine outside, bore pitted. Mechanism perfect, side hammer, double set triggers. Woodwork oil polished, some dents in fore end and slight repair at grip. Weight about 11 pounds, \$10.00. 45-70 Sporting, 30 inch barrel, bore slightly pitted but still accurate. Mechanism perfect, woodwork good, oil finished, side hammer, \$8.00. Buffalo gun, .45105 heavy octagon barrel new condition, 30 inches. Mechanism perfect, double set triggers, most of original finish showing on action. Straight buttstock and heavy forestock oil finished like new. Standard sights. Weight about 17 pounds. A few loaded shells, \$25. Sharps-Borchardt hammerless 45-70 military model. Barrel 32 inches with cleaning rod, bore somewhat scratched ahead of chamber but accurate, outside finish fair. Receiver re-blued and mechanism good. Woodwork refinished with oil and good, one or two small dents, \$8.00. Sharps sporting .40-60 round barrel 28 inches. Mechanism in good working order. Woodwork re-finished, fair only. Barrel reblued, bore worn out. Receiver ring cracked. Specimen only. \$3.50. Remington-Heppburn target rifle .40-90 takes 3 1/4 inch case, half octagon barrel, 22 inches. Bore has a few slight pits but is in good condition and accurate, outside finish fair slightly worn. Mechanism in perfect order original finish on action. Checkered pistol grip stock, has few slight scratches. Globe fore-sight and vernier peep on tang. 40 new loader shells and some empties. \$22.00. C. D. Christie 204 Wolvin Bldg., Duluth, Minn. 933

FOR SALE OR TRADE—Win. 1912, 12 ga. pump with exceptionally beautiful curly Cir-cassian walnut oil finished and polished straight stock, recoil pad and two barrels, one 32 inches full, one about 27 inches modified, perfect throughout except slightly blue-worn, price \$65 or \$50 with one barrel, or will sell stock alone for \$20, or open barrel for \$15. Stock for Winchester 52, rebuilt by Griffin & Howe to correct dimensions for scope use, with exceptionally good checked pistol grip and checked fore-end, \$12.50. Ideal 165 gr. .32-40 mold, \$1. **WANT**—250-3000 Savage bolt or other bolt actions, Niedner .30-06 barrel for Springfield with tools, Niedner high power rifles, scopes or other rifles. D. S. Purdy, Ithaca, N. Y. 950

FOR SALE—Ideal No. 4 Reloading tool for .32-40 cartridges, new, \$3.50; Ideal moulds, new No. 321232, Express \$2.00. No. 321265, new, \$2.00. No. 32359, new, \$2.00. No. 323175, used but good, \$1.50. Ideal mould for 16 ga round ball, new, \$1.75. Ideal shell resizer for .32 Win. Special, \$1.50. .38 cal. bullet mould for outside lubricated bullet, 75 cents, good. **WANTED**—45 cal. revolver smokeless cartridges or empties, of Frankford Arsenal manufacture. Stevens .22 cal. Diamond Model Pistol, 6 inch barrel, must be good. C. R. Jeffries, 137 Nevln St., Lancaster, Pa. 937

FOR SALE—One Colt .45 revolver, Model 1917, in issue condition, \$15.00 or trade for Colt .45 Single action in similar shape. **WANT** Sharps Octagon 30 inch 10 lb. barrel only in good shape, to take .45 cal. 3 1/4 inch or 2 1/2 inch cartridge. H. K. Davis, 413 10th St., Ames, Iowa. 940

FOR SALE—Thirty-five Winchester (.35 W.C.F.) caliber Niedner-Krag, 22 1/4 inch nickel steel barrel. Plain stock. All new and strictly Niedner quality. For hardest usage after biggest American game. Write for description \$55. S. L. Carter, Colliers, West Va. 934

FOR SALE—Russ. Sporter, 25 inch, Springfield front sight, remodeled stock, 5 lb. trigger. 140 cartridges, \$8.50 M. O. S. B. Wetherald, Sandy Springs, Md. 935

STATEMENT OF THE OWNERSHIP, MANAGEMENT AND CIRCULATION OF THE AMERICAN RIFLEMAN

April 1, 1925

City of Washington.

District of Columbia.

Before me, a notary public in and for the State and county aforesaid, personally appeared Fred H. Phillips, Jr., who, having been duly sworn according to law, deposes and says that he is the Editor of The American Rifleman (published semi-monthly) and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management and circulation of the publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, National Rifle Association of America, Washington, D. C. Editor, Brig. Gen. Fred H. Phillips, Jr., 1108 Woodward Bldg., Washington, D. C. Managing Editor: None. Business Managers: Executive Committee, National Rifle Association of America.

2. That the owners (no stock issued) are: Hon. Francis E. Warren, Cheyenne, Wyo., President; Maj. Gen. F. C. Alden, Washington, D. C., First Vice-President; Lieut. Col. Fred M. Waterbury, New York City, Second Vice-President; Lieut. Col. A. B. Critchfield, Shreve, Ohio, Third Vice-President.

3. That the known bondholders, mortgages, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: None.

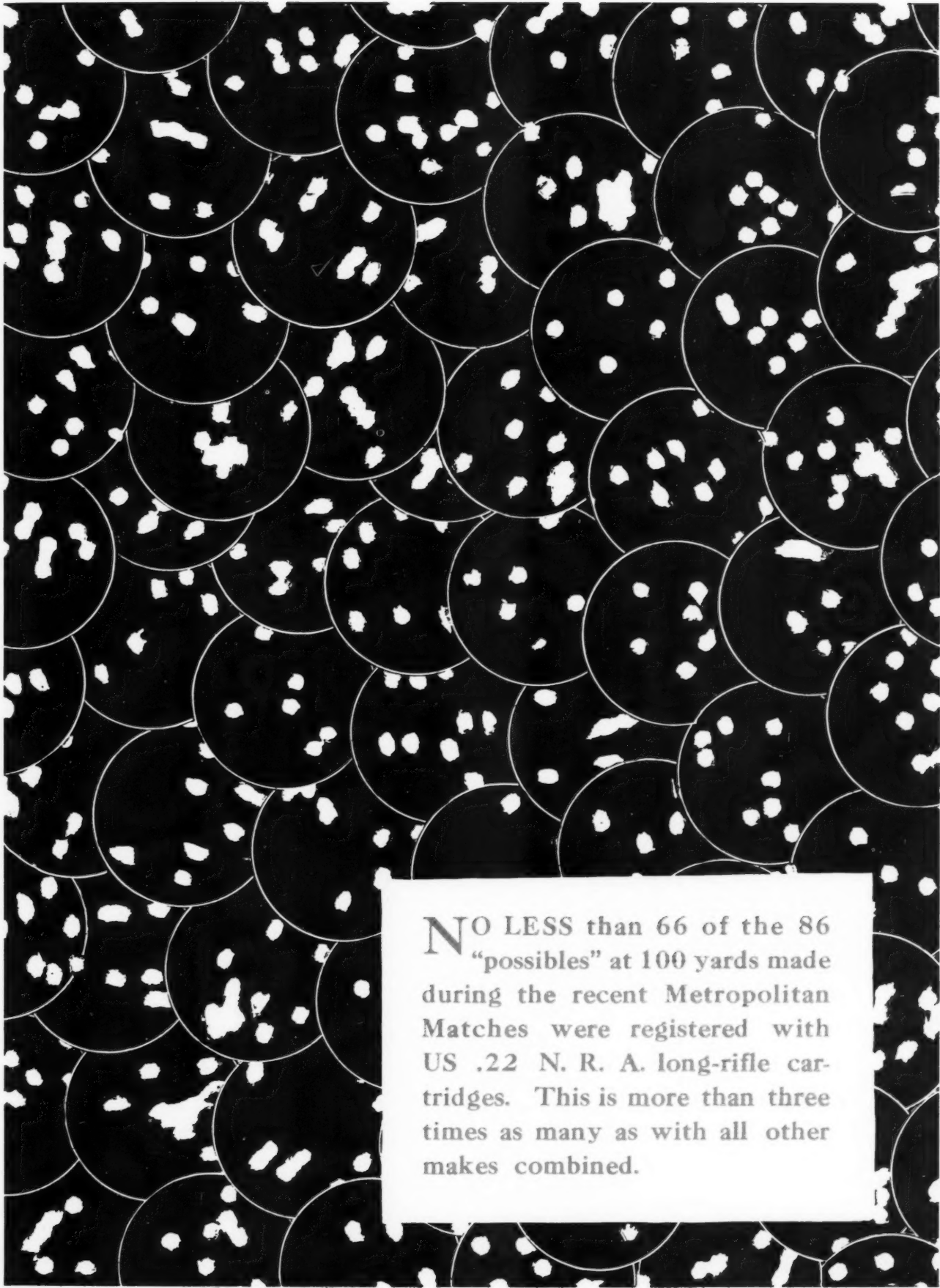
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is: (Required of daily publications only.)

[Signed] F. H. Phillips, Jr., Editor.
Sworn to and subscribed before me this second day of April, 1925.

[Signed] Sadie E. Roberts.

[Seal] (My commission expires March 17, 1930.)



NO LESS than 66 of the 86 "possibles" at 100 yards made during the recent Metropolitan Matches were registered with US .22 N. R. A. long-rifle cartridges. This is more than three times as many as with all other makes combined.

From the original drawing by
Sgt. Burns—11th Infantry.



The Bridgehead at Dun-Sur-Meuse

Did you ever watch a swimmer pull himself into a boat? First, strong fingers on the gunwale, then the head and shoulders raised, and, with a heave and a grunt, he is over the side.

That's what a bridgehead is!

First the Engineers—laying their flooring over pontoons in the hell of bursting shrapnel and the deadly gas, then the advance guard of the Infantry, and finally the long lines of the Brigade or Division.

The 5th Division accomplished the difficult feat of establishing a bridgehead at Dun-Sur-Meuse, on the eastern bank of the river, in the face of the deadly fire from the grimly-holding Boche. General Pershing called this operation "one of the most brilliant military feats in the history of the American Army in France."

The 11th Infantry, on the heights above the western bank, for a time protected the crossing and later fought at the very peak of the advance until the Armistice was signed.

E. I. DU PONT DE NEMOURS & CO., Inc.
WILMINGTON, DELAWARE



DuPont Powder has been inseparably connected with the combat history of every organization in the Service. In 1802, practically all du Pont Powder was made for military purposes. Today, 98% is produced for industrial uses

